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North Revilla Draft Environmental Impact Statement

Ketchikan Pulp Company Long-Term Timber Sale Contract Volume II

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ACRONYMS AND SYMBOLS

ADF&G	Alaska Department of Fish and Game
AHMU	Aquatic Habitat Management Unit
ANCSA	Alaska Native Claims Settlement Act
ANILCA	Alaska National Interest Lands Conservation Act
ASQ	Allowable Sale Quantity
BBF	One billion board feet
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CFL	Commercial Forest Land
CFR	Code of Federal Regulations
CZMA	Coastal Zone Management Act of 1976
DBH	Diameter at Breast Height
DEIS	Draft Environmental Impact Statement
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
EVC	Existing/Expected Visual Condition
FEIS	Final Environmental Impact Statement
FSH	Forest Service Handbook
FSM	Forest Service Manual
GIS	Geographic Information System
IDT	Interdisciplinary Team
KPC	Ketchikan Pulp Company
KV	Knutsen-Vandenberg Act
LTF	Log Transfer Facility
LUD	Land Use Designation
LWD	Large Woody Debris (same as LOD)
MBF	One thousand board feet
MELP	Multi-Entry Layout Process
MIS	Management Indicator Species
MM	Maximum Modification
MMBF	One million board feet
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act
NMFS	National Marine Fisheries Service
NOI	Notice of Intent
P	Primitive
PR	Partial retention
R	Retention
RM	Roaded modified
RN	Roaded natural
ROD	Record of decision
ROS	Recreation Opportunity Spectrum
SHPO	State Historic Preservation Officer
SPM	Semi-primitive motorized
SPNM	Semi-primitive nonmotorized
TLMP	Tongass Land Management Plan
TRUCS	Tongass Resource Use Cooperative Survey
TTRA	Tongass Timber Reform Act
USDA	United States Department of Agriculture
USDI	United States Department of the Interior
USFWS	United States Fish and Wildlife Service
VCU	Value Comparison Unit
VQO	Visual Quality Objective
WAA	Wildlife Analysis Area

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Front cover: By Cindy Ross Barber, 1992. The cover design illustrates the range of interconnected issues addressed in this EIS.



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Appendices

- A. Reasons For Scheduling
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Appendix A

Reasons For Scheduling the Environmental Analysis of the North Revilla Project Area



Reasons For Scheduling The Environmental Analysis Of The North Revilla Project Area

KPC Long-term Timber Sale Contract Offerings

This appendix explains why the North Revilla Project Area is scheduled for environmental analysis at this time.

Summary

Reasons for scheduling the North Revilla Project Area at this time, for detailed consideration of timber harvest under the Ketchikan Pulp Company Long-term Timber Sale Contract, may be summarized as follows:

1. The North Revilla Project Area is within the Contract Area Boundary of the "F" Allotment Primary area, for the Ketchikan Pulp Company Long-term Timber Sale Contract, and contains a sufficient amount of harvestable timber volume designated as LUD III or IV, and therefore appropriate for harvest under the Tongass National Forest Land Management Plan (TLMP). Available information indicates harvest of the amount of timber being considered for this project can occur consistent with Forest Plan Standards and Guidelines and other requirements for resource protection. Consideration of areas outside the designated sale area at this time would not meet Ketchikan Pulp Company Contract requirements and is otherwise not necessary or reasonable.
2. Other areas with available timber inside the designated sale area will be necessary for harvest within the remainder of the Ketchikan Pulp Company Contract term (by 2004) in order to meet contract volume requirements. Effects on subsistence resources are projected to differ little according to which sequence these areas are subjected to harvest. Harvesting other areas on the Tongass National Forest with available timber is expected to have similar potential effects on resources, including those used for subsistence because of widespread distribution of subsistence use. Harvest of these other areas is foreseeable, in any case, over the forest planning horizon under either the existing or proposed revised Forest Plan.
3. Providing substantially less timber volume than required by the Ketchikan Pulp Company Contract in order to avoid harvest in the North Revilla Project Area or other project areas would not meet contract requirements and is otherwise not necessary or reasonable.
4. It is reasonable to schedule harvest in the North Revilla Project Area at present rather than other areas in terms of previous harvest entry and access, level of controversy over subsistence and other effects, and the ability to complete the National Environmental Policy Act (NEPA) process and make timber available to meet contract requirements by the time it is reasonably necessary to do so. Other areas that are reasonable to consider for harvest in the near future are the subject of other project EIS's that are currently ongoing or scheduled to begin soon.
5. A 200 MMBF total offering is consistent with cumulative effects assessment of the TLMP Revision (SDEIS).

More detail regarding the scheduling of the environmental analysis for the North Revilla Project Area is presented in this appendix in three subsections:

Ketchikan Pulp Company Contract Requirements
Tongass Land Management Plan
Forest Plan Implementation

Ketchikan Pulp Company Contract Requirements

Contract Background

In 1951, the Forest Service and Ketchikan Pulp Company (KPC) entered into a contract for sale and harvest of timber in Southeast Alaska for a 50-year period beginning in 1954 and ending in 2004. A primary function of this long-term contract was to "establish a new industrial enterprise which will be an important and significant step in the industrial development of Alaska" (Forest Service 1956).

The current management situation consists of a valid contract between the Forest Service and KPC, contract number A10fs-1042. This contract bestows rights and obligations on both parties. One obligation for the Forest Service is to provide the agreed upon volume from an identified contract sale area on the Tongass National Forest. Contract section B0.62 states in part "Forest Service shall seek to specify sufficient Offerings to maintain a Current Timber Supply in all Offering Areas that total at least three years of operations hereunder or until the contract termination date, whichever comes first, and which meets the the production requirements of Purchaser's manufacturing facilities." This three year supply equates to approximately 615 million board feet.

"Current Timber Supply" is defined in the contract generally as timber which the Forest Service has specified according to Forest Service planning procedures and for which the NEPA process has been completed. The Forest Service specifies timber through approving in writing a timber "Offering" under the contract, comparable to an independent timber sale. This approval in writing is represented by issuance of an "A Division" contract document for the Offering. An EIS such as the North Revilla Project Area EIS may cover one or up to several such Offerings, which may be specified by the Forest Service and therefore added to the contract "Current Timber Supply" concurrently or sequentially after issuance of the Record of Decision for the Project. Generally, layout on the ground of roads and harvest units selected in the Record of Decision (ROD) will be completed for each Offering prior to issuance of the "A Division" approval document.

The Forest Service Timber Sale Preparation Handbook (FSH 2409.18 Chapter 10) details the process utilized to prepare timber sales. This process also guides the preparation of timber Offerings under the KPC Contract. The timber sale preparation process is summarized below. Included in brackets is information describing modifications to the process specific to the KPC Contract. The Handbook states:

The timber sale preparation process begins with the identification of the sale area and ends with the award of the timber sale contract [as described above, the process for the KPC Contract ends with the issuance of an "A Division" contract document for the Offering]. These activities pass through specific stages, called "gates", each of which requires specific outputs before proceeding to the next gate. Following are descriptions of work processes at each gate.

Gate 1. Begin sale preparation activities with scoping or position statement development. Identify the purpose and need for the project, public issues, interested outside parties, management issues, resource opportunities in the sale area, a range of possible volume targets, and initial transportation system needs. . .

Gate 2. During the sale area design (environmental analysis) phase, develop alternative designs and analyze them for environmental effects. Concurrently, develop an analysis file to store the information that is gathered. Once a course of action is selected, develop a sale implementation plan that provides detailed instructions for field layout of all sale elements. The end product of the sale area design phase is the selection of the preferred alternative and signature of the decision notice by the official authorized to approve the project. . .

Gate 3. Activities leading to sale plan implementation include the data gathering and the on-the-ground marking, designating, and delineating needed to properly support the appraisal, the preparation of the contract, and post-award sale administration efforts. The sale passes through gate 3 when the field work is completed. . .

Gate 4. After gathering all necessary engineering design work, cruise (volume) information, logging costs, environmental protection costs, and other elements of the timber appraisal. . . [a final timber appraisal is prepared for the offering(s) and an "A Division" contract document is issued].

Contract provisions require KPC to harvest timber, construct and operate a mill for primary manufacture and to recruit labor from residents of Southeast Alaska. To fulfill this obligation KPC operates a sawmill and a pulp mill in Ketchikan and a sawmill in Metlakatla.

Why Areas Outside The Primary Sale Area Boundary Are Not Considered In Detail

Since authorization of the KPC contract in 1951, several laws have decreased the land from which the authorized timber volume could be removed. The Alaska Native Claims Settlement Act (ANCSA) authorized substitution to replace areas selected by the Native Corporations. The Alaska National Interest Lands Conservation Act (ANILCA) authorized substitution for areas designated by Congress as Wilderness in that statute which were in the primary sale area. The substitutions for Native selections and Wilderness selections were accomplished prior to the North Revilla Project Area environmental analysis process.

Section B0.3 of the contract, *Description of Timber*, states in part:

The Ketchikan Pulp & Paper Company . . . , hereby agrees to purchase from an area definitely designated on the attached maps which are part of this agreement, within pulptimber Allotments E, F, and G. . . The estimated amount to be cut under the methods of marking described in B2.3 is 1,500,000,000 cubic feet of western hemlock, Sitka spruce, western redcedar, Alaska cedar, and other species of timber, more or less.

Section B0.31 of the contract, *Additional Areas*, states in part:

In the event the quantity of timber available for cutting within the above described area is insufficient for full scale operation until June 30, 2004 . . . the Regional Forester shall designate additional cutting areas within Pulptimber Allotments E, F,

and G to meet such needs of such plans for the period ending June 30, 2004, provided, that the Regional Forester is not obligated to make available for cutting more than the 1,500,000,000 cubic feet of material covered by this agreement. . .

Section B0.61 of the Contract, *Timber Offering Schedule*, provides in part:

"To the extent authorized by law, Offering Areas may be identified for harvest outside the sale area, as needed to meet sale volume requirements."

The North Revilla Project Area lies within the "primary sale area" in Primary Allotment F, described in contract section B0.3. Current data indicates that there remains sufficient timber available within the designated sale area, including the additional areas described in Contract section B0.31 above, to provide the remaining unharvested portion of the total contract volume of 1,500,000,000 cubic feet, consistent with Forest Plan Standards and Guidelines and other requirements for environmental protection. The most recent Supplement to the Draft EIS for the Tongass Land Management Revision (TLMP SDEIS), which considers reductions in timber base due to the Tongass Timber Reform Act (TTRA), indicates this for the "current direction" alternative. For the current preferred alternative for the TLMP revision, the TLMP SDEIS indicates that there is at present enough available volume within the primary designated sale area to meet contract volume requirements for the next several years at least, while still meeting all constraints associated with the alternative. At some point in the future however, volume will also be required from the contingency areas to fulfill the contract volume requirements. This evaluation is incorporated by reference and further described in the last section in this Appendix, *Forest Plan Implementation*.

Therefore, providing volume outside of the primary sale area is not necessary at this time under the terms of the contract. Modifying the contract does not meet the purpose and need for the project. Although KPC has indicated that the Forest Service has the discretion to consider obtaining volume from outside the designated sale area, it has not expressed an interest obtaining timber from other areas in lieu of the North Revilla Project Area. The criteria for modification in 36 CFR 223.112,113 have not been met, considering the information in the TLMP SDEIS, and this EIS. Congress in enacting the Tongass Timber Reform Act declined to modify the contract sale area, and by directing in section 301(e) of the statute that the Secretary of Agriculture report to Congress on the effects of eliminating the sale area, indicated an intent to reserve this decision to the legislature.

Why Providing Less Than The Contract Volume Was Not Considered In Detail

Congress in section 301(e) of the TTRA also indicated its intent to reserve to itself the question of providing less than the contract volume obligation to KPC. Providing less than the contract volume would not meet the purpose and need for the North Revilla Project. The Forest Service can expect a large monetary claim from KPC for not meeting contract volume obligations, for which there is no current funding. To the contrary, recent federal appropriations legislation has dedicated additional money to providing additional timber offerings to KPC and other Tongass National Forest timber purchasers. Volume from independent timber sales or sources outside the Tongass National Forest do not fulfill KPC Contract requirements. In any case, there is not sufficient projected volume from other sources to meet KPC volume requirements.

Logs from Native Corporations lands cannot substantially meet the total needs of KPC. Owners of private timberland are able to sell their sawlogs on the export market for much higher prices than can be paid by local manufacturing. KPC is not prohibited under the Contract from purchasing timber from Native Corporations or other sources, subject to

the requirement that, "... at least three-fourths of the pulpwood requirements of the pulp manufacturing plant and other processing facilities operated in conjunction with this sale shall be cut from the areas covered by this agreement during the period prior to July 1, 1964, and during each 5-year operating period subsequent to that date." (KPC contract B0.53). There are no provisions in the Contract to offset such purchases by adjusting the Contract timber volume. Harvest from Native Corporations lands is decreasing, reducing potential pulp as well as sawlog availability from these lands (TLMP SDEIS page 3-339). Projections are that harvest from Native lands will decrease to about 100 MMBF of which about 40 MMBF will help meet the pulp requirements of the 360 MMBF pulp capacity in SE Alaska. (Haynes/Brooks 8/92)

Canadian timber has been mentioned in the past as a source of supply for Southeast mills. Southeast Alaska pulp mills have purchased pulp logs from British Columbia (BC) in the past. However, the political and economic situation in British Columbia has changed to decrease the likelihood of substantial supply from this source. The June 1988 issue of *British Columbia Lumberman*, page W14, states that a substantial increase in demand for BC forest products is expected to decrease log exports. The Forest Minister stated: "Our main objective is to use BC timber to manufacture wood products in this province." It has been more recently stated that British Columbia is considering prohibiting log exports and is facing increased environmental pressures (TLMP SDEIS, page 3-339).

Trying to meet the long-term volume contractual obligations from outside the long-term timber sale boundaries would decrease the availability of timber for the independent timber sale program, including the Small Business Set Aside Program; obtaining a substantial portion of long-term contract timber from outside the designated sale areas would probably decrease the independent sale program by an equivalent amount under the current TLMP allowable sale quantity. Under the current Plan, an annual average of 271 MMBF net sawlog of the Forest-wide ASQ is needed to meet the long-term sale requirements, leaving an annual average of 179 MMBF net sawlog for the independent program.

The TLMP SDEIS (table 3-134, page 3-368) shows for the current Plan as amended by the TTRA (Alternative C) the contribution to ASQ net sawlog (MMBF) by Allotment Area. Contingency Areas of Allotment E, F, and G of the KPC contract area contribute 125 MMBF annual average (28%) to the ASQ. Designating any part of this volume for the long-term sale would directly reduce the portion of the ASQ available for the independent program. The timber volume included in the action alternatives in the North Revilla Project Area EIS and scheduled from this area in the TLMP for the long-term contract is greater than the current yearly size of the entire Small Business Administration timber sale program agreed to with the SBA, 80 MMBF. Section 105 of the Tongass Timber Reform Act reflects Congressional intent that the SBA program continue.

Lack of an adequate timber supply to support these programs could affect the existing mill infrastructures and employment. The TLMP SDEIS (table 3-118, page 3-337) shows that lumber mill capacity for independent operators is about 220 MMBF annually (380 MMBF minus the Wrangell and KPC Sawmills). During good market conditions, the short term sales program has purchased up to 174 MMBF and harvested up to 149 MMBF annually which translates into about 67 percent of the mill capacity (TLMP SDEIS, table 3-114, page 3-325). Therefore, under good market conditions, the existing infrastructure can absorb the available supply. Elimination of short term sales under the independent and set-aside programs would translate into a loss of between 815 and 1144 timber-related jobs (TLMP SDEIS page 3-370, 3-610).

Current Timber Supply And Contract Volume Needs

This section provides an updated look at the long-term contract timber volume projected to be available to KPC. It includes a tentative schedule projecting how volume is to be made available to meet contract obligations which states; "Forest Service shall seek to specify sufficient Offerings to maintain a Current Timber Supply in all Offering Areas that totals at least three years of operations hereunder or until contract termination date, whichever comes first, and which meets the production requirements of the Purchaser's manufacturing facilities." (Contract Section B0.62).

Generally, there is a need for approximately 2.5 BBF of timber volume remaining over the life of the KPC contract. This equates to an average of approximately 205 million board feet per year.. Table 1 shows the volume available as of January 1, 1992 and displays how timber volume would be scheduled through 1996 to help meet current timber supply needs.

Table 1
Current Timber Supply and Projected Harvest to 1996.¹

Project Area and Offerings	1992 Timber Supply	1993 Harv.	1993 Timber Supply						
Volume Available under Contract	120	120	0						
CPOW (290)		85	205						
LAB Bay (85)			85						
Polk Inlet (125)			125						
North Revilla (200)			200						
Total Volume	120	205	615						

Numbers shown in parentheses indicate EISs in progress.

¹ All volume figures shown include sawlog and utility volume and are in MMBF.

The North Revilla Project Area EIS offers volume to help meet KPC contract obligations starting in 1994. This amount of volume is reasonably necessary to help maintain a three year Current Timber Supply of at least 615 million board feet of timber. Based on the scenario shown in table 1, operations in North Revilla Project Area could begin in 1994 with all operations substantially complete by 1998.

Tongass Land Management Plan

TLMP As Amended Winter 1985-86

Chapter 1 of this EIS includes an explanation of how this project relates to the Tongass Land Management Plan. That section describes the Land Use Designations (LUDs) which allocate land areas to different types of management. Chapter 1 also explains that these LUDs were assigned to land areas known as Value Comparison Units (VCUs), and that one or more contiguous VCUs were formed into Management Areas (MAs). This section

also describes the management emphasis for the Management Area affected by the North Revilla Project.

The Tongass Land Management Plan, As Amended Winter 1985-1986, detailed Management Direction/Emphasis for the Management Area. It also scheduled specific Management Activities for specific time periods. The ten year sale action plan updates proposed timber management activities to reflect the latest information regarding timber sale preparation activities. The current ten year sale plan schedules 200 million board feet to be offered beginning in 1994.

The Allowable Sale Quantity (ASQ), calculated in TLMP and used in Congressional deliberations and decisions on ANILCA, assumed harvest in all LUD III and LUD IV VCUs, in compliance with the Southeast Area Guide, on a three entry, 100 year rotation. Some selected areas were scheduled for 4 entries in 120 years (LUD IV) and 6 entries in 200 years (LUD III) for visual considerations. A three entry rotation assumes the first entry will be made within 30 to 40 years. If areas are not entered, and the ASQ is harvested, other areas will have to receive a heavier entry, resulting in a pattern of high percentage first entries being established, and therefore creating conditions under which the three-entry rotation may not be achievable.

The TLMP as amended, also scheduled as anticipated management outputs from the Ketchikan Administrative Area, timber volume ranging from 195.0 million to 220.3 million annually (Tongass Land Management Plan Amended Winter 1985-86, page 5).

Supplemental TLMP Revision Draft EIS (TLMP SDEIS)

1. Sufficient Volume for KPC Contract Needs in TLMP SDEIS.

The TLMP SDEIS Chapter 3 section on timber (pages 3-354 and 355) provides the following summary statements in terms of the timber supply and the long-term timber sale programs.

If utility volume is included, Alternatives B, C, D, and P would meet or exceed the projected demand for National Forest timber (400 MMBF). Alternative A would provide 89 percent of the projected demand.

All (100 percent) of the first-decade Allowable Sale Quantity (ASQ, sawlog) in Alternative A would be needed to satisfy the long-term contracts; Alternative B would need 82 percent of the ASQ; Alternative C, 69 percent; Alternative D, 66 percent; and Alternative P, 75 percent.

These statements show that timber supply exceeds the level which is required to satisfy the long-term timber sale contracts (both APC and KPC). The data to support these statements is displayed in table 3-127 on page 3-355 and table 3-135 on page 3-371 of TLMP SDEIS. Table 3-135, in particular, shows the Long-Term and Short-Term Sales program volumes for the decade.

TLMP SDEIS also presents a discussion of timber supply within the KPC long-term contract sale area. As of October 1991 the remaining KPC Long-term Timber Sale Contract volume requirement was 2,405 MMBF, including utility. TLMP SDEIS alternatives A, B, C, D, and P provide, respectively, 3,800 MMBF, 4,180 MMBF, 5,930 MMBF, 5,920 MMBF and 5,480 MMBF, including utility, from the KPC designated sale area (allotments E, F, and G) per TLMP SDEIS, table 3-133, page 3-366. This information demonstrates that all the alternatives in the TLMP SDEIS include more than sufficient timber still available in the designated

KPC sale area to meet remaining contract volume requirements, consistent with resource protection requirements and other constraints projected in the document.

Further analysis in TLMP SDEIS is related to suitable-available acres. These are acres of forest that are identified as suitable for timber harvest and which are assigned management prescriptions within the TLMP SDEIS that allow consideration of timber harvest. For each alternative, TLMP SDEIS analysis confirms that the identified suitable-available acres contain more than enough potentially available timber within the sale area to meet the remaining volume commitment. These figures appear in table 3-134, pages 3-368 and 3-369, TLMP SDEIS and are summarized in the following table.

Table 3
Standing Timber Volume Available Within The Contract Area

Alt.	Allotment Area	Suitable-Available (Acres)	Old Growth Standing Vol (MMBF)
A	E-Primary	141,194	2,098
	F-Primary	38,960	698
	G-Primary	101,493	1,499
	Rest of E	39,166	826
	Rest of F	129,743	2,891
	Rest of G	157,426	2,806
		-----	-----
		607,982	10,818
B	E-Primary	154,484	2,408
	F-Primary	42,193	793
	G-Primary	122,586	1,868
	Rest of E	45,926	984
	Rest of F	147,347	3,291
	Rest of G	153,245	2,678
		-----	-----
		665,781	12,022
C	E-Primary	169,584	2,772
	F-Primary	47,769	915
	G-Primary	139,423	2,223
	Rest of E	75,551	1,702
	Rest of F	234,232	5,367
	Rest of G	227,707	4,407
		-----	-----
		894,266	17,386
D	E-Primary	179,257	2,931
	F-Primary	49,889	939
	G-Primary	145,925	2,356
	Rest of E	47,065	1,010
	Rest of F	213,401	4,853
	Rest of G	240,790	4,676
		-----	-----
		876,327	16,765
P	E-Primary	161,578	2,586
	F-Primary	45,262	859
	G-Primary	135,737	1,401
	Rest of E	65,954	1,462
	Rest of F	217,768	4,981
	Rest of G	199,856	3,809
		-----	-----
		826,155	15,098

Furthermore, TLMP SDEIS displays the number of acres of tentatively suitable lands that are scheduled to be harvested over the planning horizon for each Management Area (TLMP SDEIS, table 3-138, page 3-378). This table indicates that the scheduling of the North Revilla Project Area and other project areas within the KPC sale area to meet contract volume requirements over the next several years is anticipated. In addition, this table shows that there are adequate suitable acres in these Management Areas.

2. Cumulative Effects

The TLMP SDEIS considers the cumulative effects for forest-wide acres managed for timber production for both the long-term and short-term timber sale programs. These effects are discussed on pages 3-371 through 3-381. Cumulative effects for other resources are discussed at the end of their respective sections.

Analysis points to the need to schedule harvest in VCUs assigned management prescriptions which permit consideration of timber harvest, including the VCU's within the North Revilla Project Area. These VCU's in the current Forest plan, and in the draft revised Forest Plan would be needed to help meet the Tongass National Forest Allowable Sale Quantity, and also the contractual timber volume needs for the KPC Long-term Timber Sale. The forest-wide cumulative effects analysis in the TLMP SDEIS supports the conclusion that this harvest can be accomplished within existing and proposed revised TLMP standards and guidelines and other requirements for resource protection.

3. Subsistence

With the passage of the ANILCA, Congress recognized the importance of subsistence resources to rural residents of Alaska. In particular, prior to any disposition of public lands, an agency must first complete a subsistence effects evaluation, including consideration of the availability of other lands (ANILCA 810 (a)).

Based on a review of available harvest volumes for each VCU in the KPC contract area, it appeared that in order to meet contract volume commitments, most of the LUD III and IV VCU's would need some level of harvest prior to the end of the KPC contract in 2004. A tentative offering schedule was developed and approved for implementation based on this analysis. In short, almost all LUD III and IV VCU's in the KPC Long-term Sale would be scheduled for harvest within the next 10 to 15 years, indicating a level of impact to all subsistence use areas. However, the most significant impacts on the subsistence resource habitat would not occur until 20 to 30 years after the timber harvest when the second growth canopy closes. When those impacts to subsistence resources are viewed from a reference point 20 years in the future, the particular importance of which areas are scheduled first during a 5-year period appears to be minor.

In considering communities that may be most affected by any proposed timber harvest in the North Revilla Project Area, Metlakatla, Meyers Chuck, Thorne Bay, Saxman, and Wrangell appear to have the strongest cultural and subsistence ties to the area. Each community has its own level of reliance on subsistence as well as its own level of reliance on the North Revilla Project Area for supplying subsistence resources. Information regarding subsistence use by these communities is provided in chapter 3 of the North Revilla Project EIS.

Extensive forest-wide cumulative effect analysis has been included in the TLMP SDEIS (TLMP SDEIS pages 3-628 through 3-765). That analysis, and the tables of data shown in appendix K of TLMP SDEIS are incorporated by reference into this document. The data in

appendix K and L indicates subsistence hunting of deer and other uses in virtually every area of the Tongass with substantial quantities of harvestable timber. The following information is extracted directly out of the Tongass Land Management Plan Revision, Supplement to the Draft Environmental Impact Statement, pages 3-762 and 3-763:

In conducting the subsistence evaluation it is determined that, in combination with other past present and reasonably foreseeable future actions, none of the alternatives would pose a significant possibility of significant restriction for salmon, other finfish, marine mammals, invertebrates, plants, mountain goat, moose, waterfowl, sea birds, or other small game. Together these resources account for an average of 79 percent of the total harvest of subsistence resources (Kruse and Muth, 1990).

In considering the impacts of future actions that may take place under the proposed alternatives on deer, two types of analysis was conducted. Potential effects were first determined for those WAA's where residents have successfully harvested deer, then for those WAA's where residents have ever gone to harvest deer. Both 10 percent and 20 percent harvest levels of the deer population were used.

Considering only those WAA's where residents successfully harvested deer and assuming a harvest level of 10 percent of the population, there would be sufficient deer in all alternatives for the next 50 years to meet all subsistence needs for all communities except Gustavus, Hoonah, Kake, Pelican, Sitka, and Yakutat (appendix K). For these communities, there would be insufficient habitat capability to support harvest by all subsistence users (regardless of the community of origin). However, at 20 percent of the population, all subsistence needs for these communities would be met by all alternatives for the next 50 years (appendix K).

If instead of considering only those WAA's in which hunters were successful, we consider all WAA's ever hunted by community residents, then there would be sufficient deer habitat capability to support all subsistence hunters in the WAA's used for hunting by all subsistence communities except for Pelican and Gustavus. If instead of assuming a 10 percent harvest level, a 20 percent harvest level is used, there would be sufficient habitat capability to support all subsistence harvest in all WAA's used for hunting by all subsistence communities.

As a result of the analysis of the impacts of projects that would be permissible under each of the alternatives considered for adoption in the Forest Plan, it has been determined that all of the alternatives, if all permissible projects were fully implemented, have the potential to impact subsistence uses of deer, black bear, and furbearers (specifically martens) due to potential effects of projects on abundance/distribution, and competition.

The analysis shown in chapter 3 of this EIS is supported by the analysis shown above in the TLMP SDEIS. The conclusion stated above, "it has been determined that all of the alternatives, if all of the permissible projects were fully implemented, have the potential to impact subsistence uses of deer. . .", supports the conclusion that any environmental analysis area within the Tongass would have a similar chance of having a significant possibility of a significant restriction on subsistence resources for Sitka Black-tailed deer, and other mammals.

The analysis for ANILCA section 810 are shown in the Subsistence section of chapter 3, in this EIS. The determinations made from the ANILCA section 810 analysis and findings are a part of the Record of Decision for this project and were developed in conjunction with the Final EIS.

Forest Plan Implementation

Review of Available Volume

A review was conducted of each VCU within the designated sale area for available volume. This analysis was based on computer inventories and Allowable Sale Quantity (ASQ) calculations from TLMP SDEIS (1991a).

The review used the following guidelines to identify likely areas to schedule for environmental analysis in the near future:

- (1) Evaluate by area the total available volume within the designated sale area. Between 1991 and 1993, there is a need to identify a potential harvest of 700 MMBF.
- (2) Identify a tentative operating schedule which addresses volume to be offered from the Ketchikan Administrative Area.
- (3) Prepare a schedule of environmental analysis areas which shows how the Ketchikan Area will meet the tentative operating schedule from 1991 through the end of the contract. This schedule must provide a minimum of 615 MMBF 'current timber supply' through the end of the contract.

The results of the first step by the working group analysis are presented in Table 5. The results of this volume review, further supported by TLMP revision information, provided the basis for scheduling the next series of environmental analyses.

Table 5
Available Volume By VCU In The KPC Contract Boundary (9/89).

Project Area	MAs In Analysis Area	(MMBF)
AA I Central Prince of Wales		
Central Prince of Wales	K03 (Portion), K07, K08, K09, K10	291
Ratz (2nd Entry)	K09 (Portion)	40
Honker (2nd Entry)	K08 (Portion)	141
Luck Lake (2nd Entry)	K08 (Portion), K09 (Portion)	70
Tuxekan (2nd Entry)	K07	105
AA 2 - Lab Bay		
Lab Bay	K01, K03 (Portion)	85
North POW (2nd Entry)	K01, K03 (Portion)	150
AA 3 - Polk Inlet		
Polk Inlet	K17, K18	125
Chomondeley (2nd Entry)	K18, K19	80
AA 4 - North Revilla		
North Revilla	K32 (Portion)	200
AA 6 - Sea Level		
Sea Level	K35	67
AA 7 - Control Lake		
Control Lake	K05, K08	187
AA 8 - Upper Carrol		
Upper Carrol	K32 (Portion)	130
AA 9 - Three Creeks		
Three Creeks	K39	49
AA 10 - Vixen Inlet		
Vixen Inlet	K29	175
AA 11 - Port Stewart		
Port Stewart	K30	135
AA 12 - Lower Carrol		
Lower Carrol	K34, K35	41
AA 13 - Kosciusko		
Kosciusko	K05	36
AA 14 - South POW		
South Pow	K28	80
AA 15 - Heceta		
Heceta	K11	76
AA 16 - Chasina		
Chasina	K24	164
AA 17 - Molra		
Molra	K25	17

Analysis Area Reviews

For each area identified as having sufficient volume available to consider for further environmental analysis at this time, a review was conducted to decide which areas to schedule first, considering the current TLMP and proposed revised TLMP schedule, and other factors described below. The results of this review and supporting reasons for each area appear below:

Central Prince of Wales - This project area is located within TLMP management areas K03, K07, K08, K09 and K10. The area has had extensive harvesting in the past. No additional log transfer facilities (LTF's) are required to harvest timber in this area. The majority of the road system is already in place, only limited additional road construction would be required. The area is entirely within the primary sale area. This area was given the highest priority due to its location within primary sale area, ease of access, prior harvest and no additional LTF construction.

Polk Inlet - This project area is located within TLMP management area K17 and K18. The K17 portion of the area is located within the primary sale area. The area has had extensive harvesting in the past. Roads have been developed previously into the area but construction is difficult due to the terrain. A logging system transportation analysis was completed for the area as part of the 1989-1994 EIS. Three LTF's will be required enter the area but they have already been approved for construction under the 1989-1994 EIS and their required permits have been acquired or in process. The area was given a high priority since it has a large portion located within primary sale area, has had previous harvest, and has had prior road development. The area was not given highest priority due to LTF construction and difficult access.

Lab Bay - This project area is located within TLMP management area K01 and K03. The area has had extensive harvesting in the past. One additional LTF will be required, other timber will utilize two existing LTF's. The vast majority of timber will have to pass through these two existing LTFs. The limited number of additional LTF's in the area could create a bottle neck getting wood from the field into the water. The area was given a high priority since it is in the primary sale area, has current road access, and has had previous harvest. It was not given highest priority due to a limited number of LTF's to put logs into the water.

North Revilla - This project area is located within TLMP management area K32. The area has had extensive harvesting in the past. It is located within the primary sale area. A large amount of new road construction will be needed in the area. Road construction into the area is difficult due to steep terrain and unstable slopes. Nine LTF's will be required to access the area, of which three will require new construction. The area was given high priority since it is within the primary sale area, has had prior harvest and road construction, and a logging system transportation analysis had already been completed for the area. It was not given highest priority due to the requirement of three new LTF's and difficult road construction.

Sea Level - This project area is located within TLMP management area K35. The area has had limited harvesting in the past. The area is within the KPC long term contract, however it is outside primary sale area boundary. Road construction is difficult in the area but no new LTF's are required to access the timber. This area was given a moderate priority for scheduling due to being within the timber sale contract and not requiring any new LTF's.

Control Lake - This project area is located within TLMP management area K08 and K05. The area has had extensive harvesting in the past. No additional log transfer facilities (LTF's) are required in to harvest timber in this area. The majority of the road system is already in place, only limited additional road construction would be required. The area is within the long-term contract area, but not within the primary sale area portion. This area was given a moderate priority since it had ease of access, prior harvest and no additional LTF construction but was not within the primary sale area.

Heceta - This project area is located within TLMP management area K11. The area has had extensive harvesting in the past. The area is within the KPC long term contract, however

it is outside primary sale area boundary. Remaining volume available for harvest in the area is low. The project area is a small island off the west coast of Prince of Wales Island and faces the open ocean. This makes the logistics associated with timber harvest activities difficult. This area was given a moderate priority for scheduling due not being in the primary sale area, low potential volume, and difficult logistic problems.

Upper Carrol - This project area is located within TLMP management area K32. The area has had limited harvesting in the past. The area is within the KPC long term contract, however it is outside primary sale area boundary. Road access in the area is difficult. One new LTF will be required. Road construction associated with this project may help complete the linkage for the transportation utility corridor planned for the area. This area was given a moderate priority for scheduling despite the potential transportation utility corridor due difficult access and not being in the primary sale area.

Three Creeks - This project area is located within TLMP management area K39. The area has had limited harvesting in the past. The area is immediately behind the community of Ketchikan and as is heavily used for recreation. The area is within the KPC long term contract, however it is outside primary sale area boundary. This area was given a moderate priority for scheduling despite good timber harvest economics due to low potential volume and high recreation values.

Vixen Inlet - This project area is located within TLMP management area K29. The area has had limited harvesting in the past. There is potentially a large amount of volume available in the area, although it is somewhat scattered. This will require a high ratio of miles of road construction per MBF of timber harvest. The area is within the KPC long term contract, however it is outside primary sale area boundary. The project is on Cleveland Peninsula which has important wildlife and recreation values. There is currently no road access into the area. There are no existing LTF's and one new LTF would be required. This area was given a moderate priority for scheduling due the large amount of potential volume and since it is within the long term sale boundary. It was not given a high priority since it is not within the primary sale area and has high recreation and wildlife values.

Port Stewart - This project area is located within TLMP management area K30. The area has had limited harvesting in the past. There is potentially a large amount of volume available in the area, although it is somewhat scattered. This will require a high ratio of miles of road construction per MBF of timber harvest. The area is within the KPC long term contract, however it is outside primary sale area boundary. The project is on Cleveland Peninsula which has important wildlife and recreation values. There is currently no road access into the area. There are no existing LTF's and one new LTF would be required. This area was given a moderate priority for scheduling due the large amount of potential volume and since it is within the long term sale boundary. It was not given a high priority since it is not within the primary sale area and has high recreation and wildlife values.

Lower Carrol - This project area is located within TLMP management area K34 and K35. The area has had limited harvesting in the past. The area is within the KPC long term contract, however it is outside primary sale area boundary. The area was recently analyzed as part of the Shelter Cove EIS. As part of that EIS a logging system transportation analysis was developed for the area. Remaining volume potentially available for harvest from this area is low. This area was given a low priority for scheduling due to not being in the primary sale area, low amount of potential volume, and having been recently analyzed as part of another EIS.

Kosciusko - This project area is located within TLMP management area K05. The area has had extensive harvesting in the past. The area is within the KPC long term contract,

however only a small portion is within the primary sale area boundary. This area was recently analyzed as part of the Sea Otter Sound project. As part of the settlement agreement on that EIS, the area is currently not available for harvest as part of the long-term sale. This area was given a low priority for scheduling due to not being included in the primary sale area and since it was recently analyzed in an EIS.

South POW - This project area is located within TLMP management area K28. The area has had extensive harvesting in the past. The area is within the KPC long term contract, however it is outside primary sale area boundary. There is no existing logging system transportation analysis available for the area. The area would require the construction of three new LTF's. Road construction in the area would be very difficult. The quality and quantity of timber in the area is not very high. The result is that timber harvest in the area is likely to be economically marginal. As a result of these factors, this area was given a low priority for scheduling.

Results of Analysis

Upon completion of the above analysis, four Project Areas were identified and scheduled for environmental analysis. The four timber projects were initiated which had a high priority and were within the KPC "Primary Sale Area". The KPC contract provides direction to seek to find timber supplies within the Primary Sale Area before seeking volume within contingency areas. These four projects were needed to produce sufficient volume to provide KPC with 205 MMBF for the 1993 logging season, as well as to provide a three-year timber supply of 615 MMBF. There is expected to be 120 MMBF of timber volume remaining from previous projects which will be available to KPC by the beginning of the 1993 operating season. Therefore, these four timber projects need to produce a total of 700 MMBF, which, when combined with the 120 MMBF currently available, will provide volume for the 1993 logging season, plus a three-year timber supply.

This 700 MMBF was divided among the four timber projects based on the size of the project areas, as well as on their relative abilities to produce timber volume in an expedient fashion. Other factors considered in making this volume determination for the different projects included: (1) consistency with the sale schedule in the TLMP (1979a, as amended); (2) volume determined to be available in the project areas; (3) amount of road network in place; (4) the number and location of Log Transfer Facilities (LTF's) and their relative ability to handle this volume of timber within a three-year time frame; (5) presence of existing KPC-operated logging camps within the project areas to handle this volume; and (6) consistency with the sale schedule in TLMP Draft Revision (1991a).

Subsequently, a schedule of additional project level environmental analysis was identified for fiscal years 1993 through 2000 to complete the Long-term Sale.. This schedule has been reviewed and reaffirmed and is shown in the following memo.



United States
Department
of Agriculture

Forest
Service

Region 10
Tongass National Forest

Ketchikan Area
Federal Building
Ketchikan, Alaska 99901
(907-225-3101)

Reply To: 1950

Date: Oct. 10, 1992

Subject: Timber Sale NEPA Documents

To: Forest Supervisor

The following schedule of NEPA documents represents the proposed NEPA analysis needed to fulfill the timber sale action plan. This memo is intended to update the July 7, 1992 sale schedule memo.

**KETCHIKAN AREA DRAFT SALE SCHEDULE
NEPA DOCUMENT SUMMARY**

Year Complete	EIS Name	Management Area	MMBF
1993	Central Prince of Wales	K03, K07, K08, K09, K10	290
1993	Lab Bay	K01, K03	85
1993	Polk Inlet	K17, K18	125
1993	North Revilla	K32	200
1994	Sea Level	K35	67
1995	Control Lake	K05, K08	187
1995	Heceta	K11	75
1996	Upper Carrol	K32	130
1996	Three Creeks	K39	49
1996	Vixen Inlet	K29	175
1996	Port Stewart	K30	135
1998	Lower Carrol	K34, K35	41
1998	Chasina	K24	166
1998	North POW	K01, K03	103
1999	Chomondeley	K18, K19	75
1999	Ratz	K09	40
1999	Honker	K08	119
1999	Luck Lake	K08, K09	107
1999	Tuxekan	K07	59
1999	Moir	K25	119
2000	South Pow	K28	80



**KETCHIKAN AREA DRAFT SALE SCHEDULE
OFFERING AREAS**

Offering Area	Year Offered	Volume	Management Area	EIS Name
CPOW #1	1993	28	K08	CPOW
CPOW #3	1993	28	K07	CPOW
CPOW #4	1994	44	K07	CPOW
CPOW #2	1994	39	K03	CPOW
Lab Bay #1	1994	39	K01	Lab Bay
N. Fire Cove	1994	29	K32	Revilla
CPOW #8	1995	28	K09	CPOW
CPOW #7	1995	34	K08	CPOW
CPOW #6	1995	34	K07	CPOW
CPOW #5	1995	25	K07	CPOW
Lab Bay #2	1995	46	K03	Lab Bay
Polk #2	1995	34	K18	Polk
Polk #1	1995	22	K18	Polk
S. Margaret	1995	44	K32	Revilla
Sea Level #1	1995	33	K35	Sea Level
CPOW #9	1996	30	K10	CPOW
Granite Creek	1996	50	K30	Port Stewart
Polk #3	1996	20	K17	Polk
Polk #4	1996	49	K18	Polk
N. Margaret	1996	46	K32	Revilla
Control Lake #1	1997	47	K15	Control Lake
Easy Cove	1997	17	K32	Revilla
Hassler Island	1997	15	K32	Revilla
N. Trators	1997	19	K32	Revilla
S. Fire Cove	1997	30	K32	Revilla
Upper Shoal Creek	1997	07	K35	Sea Level
Licking Creek	1997	11	K35	Sea Level
S.W. Honker	1998	40	K08	Honker
Heceta #1	1998	35	K11	Heceta
Whipple Creek	1998	06	K39	Three Creeks
North POW #1	1998	46	K01	North POW
Snail Point	1998	35	K30	Port Stewart
Second Level	1998	16	K35	Sea Level
Falls Creek	1998	25	K32	Upper Carroll
Control Lake #2	1999	50	K08	Control Lake
Heceta #2	1999	40	K11	Heceta
North POW #3	1999	30	K03	North POW
North POW #2	1999	27	K03	North POW
Stewart	1999	50	K30	Port Stewart



Cholmondeley #1	1999	40	K24	Chasina
Cholmondeley #2	2000	40	K24	Chasina
Control Lake #4	2000	30	K08	Control Lake
Control Lake #3	2000	40	K08	Control Lake
North Salt Creek	2000	25	K39	Lower Carroll
Moirs #1	2000	30	K25	Moirs Bay
Wolf Lake	2000	08	K39	Three Creeks
South POW #1	2000	50	K28	South POW
Cleveland #4	2000	50	K29	Vixen Inlet
Cholmondeley #3	2001	42.4	K24	Chasina
Polk Inlet #5	2001	30	K18	Cholmondeley
Polk Inlet #7	2001	20	K18	Cholmondeley
Polk Inlet #6	2001	25	K19	Cholmondeley
Moirs #2	2001	30	K25	Moirs Bay
Ratz	2001	40	K09	Ratz
South POW #2	2001	30	K28	South POW
Cleveland #6	2001	25	K29	Vixen Inlet
Cleveland #5	2001	50	K29	Vixen Inlet
Cholmondeley #4	2002	44	K24	Chasina
Hatchery Lake	2002	40	K08	Honker
Barnes Lake	2002	39	K08	Honker
Baird Peak	2002	45	K09	Luck Lake
Moirs #4	2002	29.2	K25	Moirs Bay
Moirs #3	2002	30	K25	Moirs Bay
Staney Creek	2002	47	K07	Tuxekan
Carroll Creek	2002	75	K32	Upper Carroll
Control Lake #5	2003	20	K15	Control Lake
Buckhorne #1	2003	08	K35	Lower Carroll
Buckhorne #2	2003	08	K39	Lower Carroll
Luck Lake #1	2003	30	K08	Luck Lake
Luck Lake #2	2003	32	K09	Luck Lake
Harriet Hunt	2003	12	K39	Three Creeks
Lunch Creek	2003	08	K39	Three Creeks
Moser Bay	2003	15	K39	Three Creeks
Winter Harbor	2003	12	K07	Tuxekan
Bluff Lake	2003	30	K32	Upper Carroll
Cleveland #7	2003	50	K29	Vixen Inlet

DAVID ARRASMITH
IDT PLANNING STAFF OFFICER





Appendix B
Harvest Units Over 100 Acres in Size
By Alternative

NFMA regulations provide that 100 acres is the maximum size of created openings to be allowed for the hemlock-Sitka spruce forest type of coastal Alaska, unless excepted under specific conditions. The Alaska Regional Guide (page 3-20) provides---

Recognizing that harvest units must be designed to accomplish management goals, created openings may be larger where larger units will produce a more desirable contribution of benefits. Factors to be considered to determine when a larger size may be permitted are:

1. Topography
2. Relationship of units to other natural or artificial openings and proximity of units
3. Coordination and consistency with adjacent management areas
4. Effect on water quality and quantity
5. Visual absorption capacity
6. Effect on wildlife and fish habitat
7. Regeneration requirements for desirable tree species, based upon latest research
8. Transportation and harvesting system requirements
9. Natural and biological hazards to the survival of residual trees and surrounding stands
10. Relative total costs of preparation, logging, and administration of harvest cuts

Where it is determined by the interdisciplinary team that exceptions to the size limitation are warranted, the actual size limitation of openings may be up 100 percent greater for factor 9 and up to 50 percent greater for all other factors with the approval of the Forest Supervisor.

Exceptions to the 100 acre size limit in excess of 50 percent greater (100 percent greater for factor 9) are permitted on an individual timber sale basis after 60 days public notice, and review and approval by the Regional Forester.

The following tables display the units by alternative which exceed 100 acres in size. The reasons for exceeding the size limits are also displayed.

APPENDIX B

Units Over 100 Acres in Size

HARVEST UNIT#	ACRES	REASON	ALTERNATIVE NUMBER				
			2	3	4	5	6
3003	106	1,8,10	2				
3004	145	1,8,10	2				
3006	119	1,6,8,10	2	3	4		6
3027	102	1,8,10				5	
5023	101	1,6,8,10	2		4		
5027	103	1,8,10		3			6
5051	146	1,6,8,10			4		
6026	117	1,8,10		3			
6031	127	1,6,8,10		3	4		6
7094	134	1,6,8,10			4		
8029	106	1,8,10	2				
8038	134	1,8,10	2				
8040	103	1,8,10	2				
8069	117	1,8,10		3			6
8076	131	1,8,10		3			6
8079	114	1,8,10		3			
8104	135	1,8,10				5	
8112	146	1,6,8,10			4		
8113	107	1,6,8,10			4		
9029	103	1,8,10	2				
9038	114	1,8,10	2				
9057	108	1,8,10		3		5	6
9059	108	1,8,10		3			6
9084	144	1,8,10				5	
9096	134	1,6,8,10			4		
9101	131	1,6,8,10			4		
Over 100 Acres by Alternative			9	9	9	4	7

Appendix C

Aquatic Habitat Management Unit Prescriptions



Stream and Lake Protection
Low Gradient Floodplain Process Group
 (Channel types B1, B8, C1, C3, C4, C6, D4, D5, D8)

Stream Class

	I
Objectives	<ul style="list-style-type: none"> - Maintain or improve aquatic biological productivity - Assure the protection of riparian habitat - Allow no measurable reduction in smolt habitat capability except when change is a result of natural processes - Restore stream and/or watershed condition where habitat capability has been reduced from the natural capability - Maintain/manage old-growth characteristic habitat for riparian-associated wildlife species - Maintain long-term supplies of large woody debris sources within the process group - Allow no activities which may cause floodplain destabilization
Harvest Control	<ul style="list-style-type: none"> - Allow no commercial timber harvest within 100 feet in width on each side of all channel types - Allow single tree selection harvest within 100 to 200 feet in width on each side of B1 or B8 channel types not associated with other channel types - Allow no programmed commercial timber harvest within 100 to 200 feet in width on each side for remainder of channel types - Consider all harvest methods, on a case-by-case basis, in the riparian area beyond 200 feet if the riparian area is greater than 200 feet
Harvest Rate	<ul style="list-style-type: none"> - Beyond 100 feet from the stream, strive to maintain 90% of the normal basal area with trees 16" + dbh within areas with no programmed commercial timber harvest.
Salvage	<ul style="list-style-type: none"> - Allow no salvage in the "no commercial timber harvest" areas unless needed to meet process group objectives (e.g., windthrown trees restricting fish passage in streams) - Allow salvage in other areas while meeting objectives
Roading	<ul style="list-style-type: none"> - Locate roads in this process group only when other reasonably feasible routes do not exist.

- NOTES:**
- A primary consideration for timber harvest within this Land Use Designation is to maintain windfirmness of the unharvested trees. Where additional distance is required to provide for reasonable assurance of windfirmness, harvest may be allowed, but will be limited to uneven-aged silvicultural systems.
 - Commercial timber harvest guidelines beyond 100 feet may vary, based on site-specific analysis, in order to meet process group objectives.
 - Beyond 100 feet of the stream, incidental cutting of trees may be allowed in areas not programmed for commercial timber harvest on a case-by-case basis (e.g., for bridge stringers, totem poles, etc.).
 - Stream Classes II and III do not normally occur in this process group. If they should occur, harvest control must meet management objectives for Class II and III of the Alluvial Fan Process Group.

Stream and Lake Protection
Alluvial Fan Process Group
(Channel types A3, B5, D1, D6)

Stream Class

	I	II	III
Objectives	<ul style="list-style-type: none"> - Maintain or improve aquatic biological productivity - Assure the protection of riparian habitat - Allow no measurable reduction in smolt habitat capability except when change is a result of natural processes - Allow no activities which may cause floodplain destabilization - Restore stream and/or watershed condition where habitat capability has been reduced from the natural capability - Maintain/manage old-growth characteristic habitat for riparian-associated wildlife species 	<ul style="list-style-type: none"> - Maintain habitat capability for resident fish to the extent practicable - Assure the protection of riparian habitat - Allow no activities which may cause floodplain destabilization 	<ul style="list-style-type: none"> - Allow no activities which may cause floodplain destabilization - Assure the protection of riparian habitat - Minimize the effects of timber harvest and related land disturbance activities on the beneficial uses of water by applying Best Management Practices.
Harvest Control	<ul style="list-style-type: none"> - Allow no commercial timber harvest within active portion of fan or 100 feet of channel, whichever is greater - All harvest methods are available on remaining inactive portion of fan while meeting objectives 	<ul style="list-style-type: none"> - Allow no commercial timber harvest within active portion of fan or 100 feet of channel, if the stream flows directly into a Class I stream (25 feet if not tributary to a Class I stream). - Allow single tree selection harvest within 25 to 60 feet from streambank if not within active portion of fan and not flowing directly into a Class I stream. - All harvest methods are available on remaining inactive portion of fan while meeting objectives 	<ul style="list-style-type: none"> - Allow no programmed commercial timber harvest within active portion of fan or 25 feet of streambank, whichever is greater - All harvest methods are available on remaining inactive portion of fan while meeting objectives
Harvest Rate	Beyond 100 feet of the stream, strive to maintain 90% of the normal basal area with trees 16"+ dbh within areas with "no programmed commercial timber harvest" (see note below)	<ul style="list-style-type: none"> - Harvest should not exceed 50% of the forest land of individual fan. Remaining forested land is not to be harvested until created openings contain 50 foot tall conifer trees (approximately 30 yrs.) 	

Stream Class

	I	II	III
Salvage	<ul style="list-style-type: none"> - Allow no salvage in the no commercial timber harvest area unless needed to meet process group objectives (e.g., windthrown trees restricting fish passage in streams) - Allow salvage in other areas while meeting objectives 		<ul style="list-style-type: none"> - Allow salvage in all areas while meeting objectives
Roading	<ul style="list-style-type: none"> - Anticipate stream meandering in determining the feasibility and/or most practical road locations, stream crossings, and design. 		

- NOTES:
- A primary consideration for timber harvest within this Land Use Designation is to maintain windfirmness of the unharvested trees. Where additional distance is required to provide for reasonable assurance of windfirmness, harvest may be allowed but will be limited to uneven-aged silvicultural systems.
 - Except within 100 feet of a Class I stream and 100 feet of a Class II stream which flows directly into a Class I stream, commercial timber harvest guidelines may vary, based on site-specific analysis, in order to meet process group objectives.
 - Except within 100 feet of a Class I stream and 100 feet of a Class II stream which flows directly into a Class I stream, incidental cutting of trees may be allowed in areas not programmed for commercial timber harvest on a case-by-case basis (e.g. for bridge stringers, totem poles, etc.).

Stream and Lake Protection
Mixed Control Moderate Gradient Process Group
 (Channel types B2, B3, D3)

Stream Class

	I	II	III
Objectives	<ul style="list-style-type: none"> - Maintain or improve aquatic biological productivity - Assure the protection of riparian habitat - Allow no measurable reduction in smolt habitat capability except when change is a result of natural processes - Allow no activities which may cause floodplain destabilization - Restore stream and/or watershed condition where habitat capability has been reduced from the natural capability - Maintain/manage old-growth characteristic habitat for riparian-associated wildlife species 	<ul style="list-style-type: none"> - Maintain habitat capability for resident fish to the extent practicable - Assure the protection of riparian habitat - Allow no activities which may cause floodplain destabilization 	<ul style="list-style-type: none"> - Allow no activities which may cause floodplain destabilization - Assure the protection of riparian habitat - Minimize the effects of timber harvest and related land disturbance activities on the beneficial uses of water by applying Best Management Practices.
Harvest Control	<ul style="list-style-type: none"> - Allow no commercial timber harvest within 100 feet of channels. - Allow single tree selection on remainder of the area. 	<ul style="list-style-type: none"> - Allow no commercial timber harvest within 100 feet of streams which flow directly into Class I streams. For other streams, allow single tree selection harvest within 25 feet of B2 channels and 60 feet of B3 and D3 channels. - All harvest methods are available on remaining area; where timber harvest is allowed within 100 feet of the stream, final harvest should incorporate undulating unit boundaries to limit the amount of continuous disturbance parallel to the streambank 	<ul style="list-style-type: none"> - Allow single tree selection within 25 feet of B2 channels - All harvest methods are available on remaining area while meeting objectives
Harvest Rate	- Forest-wide Standards and Guidelines for timber apply		

Stream Class

	I	II	III
Salvage	- Allow no salvage in the "no commercial timber harvest areas" unless needed to meet process group objectives (e.g., windthrown trees restricting fish passage in streams) - Allow salvage in other areas while meeting objectives		- Allow salvage in all areas while meeting objectives
Roading	- Special road construction techniques may be required to ensure fish passage		

- NOTES:**
- A primary consideration for timber harvest within this Land Use Designation is to maintain windfirmness of the unharvested trees. Where additional distance is required to provide for reasonable assurance of windfirmness, harvest may be allowed but will be limited to uneven-aged silvicultural systems.
 - Except within 100 feet of a Class I stream and 100 feet of a Class II stream which flows directly into a Class I stream, commercial timber harvest guidelines may vary, based on site-specific analysis, in order to meet process group objectives.
 - Except within 100 feet of a Class I stream and 100 feet of a Class II stream which flows directly into a Class I stream, incidental cutting of trees may be allowed in areas not programmed for commercial timber harvest on a case-by-case basis (e.g. for bridge stringers, totem poles, etc.).

Stream and Lake Protection
Large Low Gradient Contained Process Group
(Channel types C2, C5)

Stream Class

	I	II
Objectives	<ul style="list-style-type: none"> - Maintain or improve aquatic biological productivity - Assure the protection of riparian habitat - Allow no activities which may cause floodplain destabilization - Allow no measurable reduction in smolt habitat capability except when change is a result of natural processes - Maintain/manage old-growth characteristic habitat for riparian-associated wildlife species 	<ul style="list-style-type: none"> - Maintain habitat capability for resident fish to the extent practicable - Assure the protection of riparian habitat - Allow no activities which may cause flood plain destabilization
Harvest Control	<ul style="list-style-type: none"> - Allow no commercial timber harvest within 100 feet - All harvest methods are available on remaining area while meeting objectives - Full suspension yarding is required to cross stream channel 	<ul style="list-style-type: none"> - Allow no commercial timber harvest within 100 feet of streams which flow directly into Class I streams - Allow no programmed commercial timber harvest within 25 feet of other streams - All silvicultural systems are available on remaining area while meeting objectives - Minimize soil disturbance associated with yarding within inner gorge - Full suspension yarding is required to cross stream channel
Salvage	<ul style="list-style-type: none"> - Allow no salvage in the "no commercial timber harvest" areas unless needed to meet process group objectives (e.g., windthrown trees restricting fish passage in streams) - Allow salvage in other areas while meeting objectives 	
Roading	<ul style="list-style-type: none"> - Road construction is generally not appropriate in this process group; where road crossings are required, minimize erosion and sedimentation associated with road crossing approaches within inner gorge 	

NOTES:

- A primary consideration for timber harvest within the Land Use Designation is to maintain windfirmness of the unharvested trees. Where additional distance is required to provide for reasonable assurance of windfirmness, harvest may be allowed but will be limited to uneven-aged silvicultural systems.
- Except within 100 feet of a Class I stream and 100 feet of a Class II stream which flows directly into a Class I stream, commercial timber harvest guidelines may vary, based on site-specific analysis, in order to meet process group objectives.
- Except within 100 feet of a Class I stream and 100 feet of a Class II stream which flows directly into a Class I stream, incidental cutting of trees may be allowed in areas not programmed for commercial timber harvest on a case-by-case basis (e.g. for bridge stringers, totem poles, etc.).
- Stream Class III does not normally occur in this process group. If it should occur, Harvest Control must meet Management Objectives for Class III of the Moderate Gradient Contained Process Group.

Stream and Lake Protection
Moderate Gradient Contained Process Group
 (Channel types B4, B6, B7)

Stream Class

	I	II	III
Objectives	<ul style="list-style-type: none"> - Maintain or improve aquatic biological productivity - Assure the protection of riparian habitat - Allow no measurable reduction in smolt habitat capability except when change is a result of natural processes - Restore stream and/or watershed condition where habitat capability has been reduced from the natural capability - Allow no activities which may cause floodplain destabilization - Maintain/manage old-growth characteristic habitat for riparian-associated wildlife species 	<ul style="list-style-type: none"> - Maintain habitat capability for resident fish to the extent practicable - Assure the protection of riparian habitat - Allow no activities which may cause floodplain destabilization 	<ul style="list-style-type: none"> - Allow no activities which may cause floodplain destabilization - Assure the protection of riparian habitat - Minimize the effects of timber harvest and related land disturbance activities on the beneficial uses of water by applying Best Management Practices.
Harvest Control	<ul style="list-style-type: none"> - Allow no commercial timber harvest within 100 feet 	<ul style="list-style-type: none"> - Allow no commercial timber harvest within 100 feet of streams which flow directly into Class I streams 	<ul style="list-style-type: none"> - All harvest methods are available while meeting objectives
	<ul style="list-style-type: none"> - Beyond 100 feet, selectively leave trees with crowns that do not extend above the slope break - Minimize soil disturbance associated with yarding within the inner gorge - Full suspension yarding required to cross stream channel - Maintain near-natural snag component of stand 	<ul style="list-style-type: none"> - Selectively leave trees with crowns that do not extend above the slope break along streams which do not flow directly into Class I streams and beyond 100 feet for other streams - Minimize soil disturbance associated with yarding within inner gorge - Full suspension yarding required to cross stream channel 	

Stream Class

	I	II	III
Salvage	<ul style="list-style-type: none"> - Allow no salvage in the 'no commercial timber harvest areas' unless needed to meet process group objectives (e.g., windthrown trees restricting fish passage in streams) - Allow salvage in other areas while meeting objectives 		
Roading	<ul style="list-style-type: none"> - Road construction is generally not appropriate in this process group; where road crossings are required, minimize erosion and sedimentation associated with road crossing approaches within the inner gorge 		

NOTES:

- A primary consideration for timber harvest within this land use designation is to maintain windfirmness of the unharvested trees. Where additional distance is required to provide for reasonable assurance of windfirmness, harvest may be allowed but will be limited to uneven-aged silvicultural systems.
- Except within 100 feet of a Class I stream and 100 feet of a Class II stream which flows directly into a Class I stream, commercial timber harvest guidelines may vary, based on site-specific analysis, in order to meet process group objectives.
- Except within 100 feet of a Class I stream and 100 feet of a Class II stream which flows directly into a Class I stream, incidental cutting of trees may be allowed in areas not programmed for commercial timber harvest on a case-by-case basis (e.g. for bridge stringers, totem poles, etc.).

Stream and Lake Protection
High Gradient Contained Process Group
 (Channel types A1, A2, A4, A5, A6, A7, D2, D7)

Stream Class

	III
Objectives	<ul style="list-style-type: none"> - Assure the protection of riparian habitat - Minimize the effects of timber harvest and related land disturbance activities on the beneficial uses of water by applying Best Management Practices. - Allow no activities which may cause floodplain destabilization
Harvest Control	<ul style="list-style-type: none"> - Allow harvest to streambank while meeting objectives - Full suspension required to cross stream channel
Harvest Rate	<ul style="list-style-type: none"> - Harvest rate not to exceed 25% of the acres every 20 years of a 3rd order or larger watershed (note: this guideline applies only to those acres associated with this land use designation)
Salvage	<ul style="list-style-type: none"> - Allow salvage while meeting objectives

- NOTES:**
- Commercial timber harvest guidelines may vary, based on site-specific analysis, in order to meet process group objectives.
 - Stream Classes I and II do not normally occur in this process group. If they should occur, Harvest Control must meet Management Objectives for Class I and II of the Moderate Gradient Contained Process Group.

Stream and Lake Protection
Placid or Glide Streams Process Group
 (Channel types L1, L2)

Stream Class

	I	II
Objectives	<ul style="list-style-type: none"> - Maintain or Improve aquatic biological productivity - Assure the protection of riparian habitat - Allow no activities which may cause floodplain destabilization - Restore stream and/or watershed condition where habitat capability has been reduced from the natural capability - Allow no measurable reduction in smolt habitat capability except when change is a result of natural processes - Maintain/manage old-growth characteristic habitat for riparian-associated wildlife species 	<ul style="list-style-type: none"> - Maintain habitat capability for resident fish to the extent practicable - Assure the protection of riparian habitat - Allow no activities which may cause flood plain destabilization
Harvest Control	<ul style="list-style-type: none"> - Allow no commercial timber harvest within 100 feet - Allow no programmed commercial timber harvest beyond 100 feet 	<ul style="list-style-type: none"> - Allow no commercial timber harvest within 100 feet of streams which flow directly into Class I streams - Allow no programmed commercial timber harvest along other streams and, for all streams, beyond 100 feet
Salvage	<ul style="list-style-type: none"> - Allow no salvage in the 'no commercial timber harvest areas' unless needed to meet process group objectives (e.g., windthrown trees restricting fish passage in streams) - Allow salvage in other areas using non-ground disturbing methods, while meeting objectives e.g. helicopter) 	
Roading	<ul style="list-style-type: none"> - Roading is generally not appropriate in this process group 	

NOTES:

- A primary consideration for timber harvest within this land use designation is to maintain windfirmness of the unharvested trees. Where additional distance is required to provide for reasonable assurance of windfirmness, harvest may be allowed but will be limited to uneven-aged silvicultural systems.
- Except within 100 feet of a Class I stream and 100 feet of a Class II stream which flows directly into a Class I stream, commercial timber harvest guidelines may vary, based on site-specific analysis, in order to meet process group objectives.
- Except within 100 feet of a Class I stream and 100 feet of a Class II stream which flows directly into a Class I stream, incidental cutting of trees may be allowed in areas not programmed for commercial timber harvest on a case-by-case basis (e.g. for bridge stringers, totem poles, etc.).
- Stream Class III does not normally occur in this process group. If it should occur, Harvest Control must meet Management Objectives for Class III of the Moderate Gradient Contained Process Group.

Stream and Lake Protection
Lakes and Ponds Process Group
(Channel types L, L3, L4, L5)

Stream Class

	I	II	III
Objectives	<ul style="list-style-type: none"> - Maintain or improve aquatic biological productivity - Assure the protection of riparian habitat - Restore stream and/or watershed condition where habitat capability has been reduced from the natural capability - Allow no measurable reduction in smolt habitat capability except when change is a result of natural change - Maintain/manage old-growth characteristic habitat for riparian-associated wildlife species 	<ul style="list-style-type: none"> - Maintain habitat capability for resident fish to the extent practicable - Assure the protection of riparian habitat 	<ul style="list-style-type: none"> - Minimize the effects of timber harvest and related land disturbance activities on the beneficial uses of water by applying Best Management Practices. - Assure the protection of riparian habitat
Harvest Control	<ul style="list-style-type: none"> - Allow no commercial timber harvest within 100 feet - Allow uneven-aged management 100 to 500 feet of lake, pond or L channel, or the extent of this land use designation, whichever is less - Any silvicultural system applies for remainder of area while meeting objectives. 	<ul style="list-style-type: none"> - Allow no commercial timber harvest within 100 feet in width of lakes and ponds which: 1) flow directly into a Class I stream, or 2) flow into a Class II stream which flows directly into a Class I stream - For lakes and ponds not flowing directly into a Class I stream, allow uneven-aged management within 100 feet of lakes and ponds less 50 acres or L channels - Allow uneven-aged management 100 to 500 feet, or extent of land use designation whichever is less, of lakes greater than 50 acres - Any silvicultural systems apply for the remainder of the area while meeting objectives - Treat as the adjacent land use designation if lake or pond is less than 5 acres 	<ul style="list-style-type: none"> - Maintain a minimum of 50% of natural shading vegetation for temperature sensitive lakes or channels - All silvicultural systems available while meeting objectives - Treat as the adjacent land use designation if lake or pond is less than 5 acres

Stream Class

	I	II	III
Salvage	<ul style="list-style-type: none"> - Allow no salvage in the "no commercial timber harvest areas" unless needed to meet process group objectives (e.g., windthrown trees restricting fish passage in streams) - Allow salvage in other areas while meeting objectives 		<ul style="list-style-type: none"> - Allow salvage in all areas while meeting objectives
Roading	<ul style="list-style-type: none"> - Roads may be allowed if other practical alternatives are not available or if needed to access the water body for recreation or other needs 		

NOTE:

- A primary consideration for timber harvest within this land use designation is to maintain windfirmness of the unharvested trees. Where additional distance is required to provide for reasonable assurance of windfirmness, harvest may be allowed but will be limited to uneven-aged silvicultural systems.
- Except within 100 feet of a Class I stream and 100 feet of a Class II stream which flows directly into a Class I stream, commercial timber harvest guidelines may vary, based on site-specific analysis, in order to meet process group objectives.
- Except within 100 feet of a Class I stream and 100 feet of a Class II stream which flows directly into a Class I stream, incidental cutting of trees may be allowed in areas not programmed for commercial timber harvest on a case-by-case basis (e.g. for bridge stringers, totem poles, etc.).

Stream and Lake Protection
Estuarine Process Group
 (Channel types E1, E2, E3, E4, E5)

Stream Class

	I
Objectives	<ul style="list-style-type: none"> - Maintain or improve aquatic biological productivity - Assure the protection of riparian habitat - Allow no measurable reduction in smolt habitat capability except when change is a result of natural processes - Restore stream and/or watershed condition where habitat capability has been reduced from the natural capability - Maintain/manage old-growth characteristic habitat for riparian-associated wildlife species
Harvest Control	<ul style="list-style-type: none"> - Allow no commercial timber harvest within 100 feet - Allow no programmed commercial timber harvest within 100 to 500 feet of E1 and E5 estuarine channels, or the extent of this land use designation, whichever is less - Allow no programmed commercial timber harvest within 100 to 200 feet of E2 and E3 estuarine channels, or the extent of this land use designation, whichever is less - Allow uneven-aged silvicultural system for remainder of area
Harvest Rate	<ul style="list-style-type: none"> - Beyond 100' from the stream, strive to maintain 90% of the normal basal area with trees 16" + dbh within areas with no programmed commercial timber harvest (see note below)
Salvage	<ul style="list-style-type: none"> - Allow no salvage in the 'no commercial timber harvest areas' unless needed to meet process group objectives (e.g., windthrown trees restricting fish passage in streams) - Allow salvage in other areas while meeting objectives
Roading	<ul style="list-style-type: none"> - Juvenile fish passage may require special attention - Generally, no roading should occur in estuarine wetland areas

- NOTES:**
- A primary consideration for timber harvest within this land use designation is to maintain windfirmness of the unharvested trees. Where additional distance is required to provide for reasonable assurance of windfirmness, harvest may be allowed but will be limited to uneven-aged silvicultural systems.
 - Commercial timber harvest guidelines beyond 100 feet may vary, based on site-specific analysis, in order to meet process group objectives.
 - Beyond 100 feet of the stream, incidental cutting of trees may be allowed in areas not programmed for commercial timber harvest on a case-by-case basis (e.g., for bridge stringers, totem poles, etc.).
 - Stream Classes II and III do not normally occur in this process group. If they should occur, Harvest Control must meet Management Objectives for Class II and III of the Lakes and Ponds Process Group.

Appendix D

Biological Assessment

Appendix D
Biological Assessment

This appendix was not available at the time of publication. Informal consultation is currently underway with the U.S. Fish and Wildlife Service regarding the Biological Assessment. The completed Biological Assessment will be incorporated into the Final North Revilla Environmental Impact Statement. The environmental consequences on threatened and endangered species and on category 2 candidate species are presented in Chapter 3 of this Draft EIS. Upon its completion, copies of the Biological Assessment will be available upon request.

Appendix E

Transportation

APPENDIX E

Transportation Facilities

Traffic Service Levels

The U.S. Forest Service operates an extensive road system throughout the United States. The agency developed a concept describing significant traffic characteristics and operating conditions. These "traffic service levels" are used in setting maintenance levels throughout the National Forest System.

	A	B	C	D
FLOW	Free flowing with adequate passing facilities.	Congested during heavy traffic such as during peak logging or recreation activities.	Interrupted by limited passing facilities or slowed by the road condition.	Flow is slow or may be blocked by an activity. Two-way traffic is difficult and may require backing to.
VOLUMES	Uncontrolled: will accommodate the expected traffic volumes.	Occasionally controlled during heavy use periods.	Erratic: frequently controlled as the capacity is reached.	Intermittent and usually controlled. Volume is limited to that associated with the single purpose.
VEHICLE TYPES	Mixed: includes the critical vehicle and all vehicles normally found on public roads.	Mixed: includes the critical vehicle and all vehicles normally found on public roads.	Controlled mix: accommodates all vehicle types including the critical vehicle. Some use may be controlled to minimize conflicts between vehicle types.	Single Use: not designed for mixed traffic. Some vehicles may not be able to negotiate. Concurrent uses between commercial and other traffic is restricted.
CRITICAL VEHICLE	Clearances are adequate to allow free travel. Overload permits are required.	Traffic controls needed where clearances are marginal. Overload	Special provisions may be needed. Some vehicles will have difficulty negotiating	Some vehicles may not be able to negotiate. Loads may have to be off-loaded and walked in.
SAFETY	Safety features are a part of the design.	High priority in design. Some protection is accomplished by	Most protection is provided by traffic management.	The need for protection is minimized by low speeds and strict traffic controls.
MANAGEMENT TRAFFIC	Normally limited to regulatory, warning, and guide signs and permits.	Employed to reduce traffic volume and conflicts.	Traffic controls are frequently needed during periods of high use by the dominant	Used to discourage or prohibit traffic other than that associated with the single purposes.
USER COSTS	Minimize: transportation efficiency is important.	Generally higher than "A" because of slower speeds and increased delays.	Not important: efficiency of travel may be traded for lower construction costs.	Not considered.
ALIGNMENT	Design speed is the predominant factor within feasible topographic limitations.	Influenced more strongly by topography than by speed and efficiency.	Generally dictated by topographic features and environmental factors. Design speeds are generally low.	Dictated by topography environmental factors, and the design and critical vehicle limitations. Speed is not important.
ROAD SURFACE	Stable and smooth with little or no dust, considering the normal season of use.	Stable for the predominant traffic for the normal use season. Periodic dust control for heavy use or environmental reasons. Smoothness is commensurate with the design speed.	May not be stable under all traffic or weather conditions during the normal use season. Surface rutting, roughness, and dust may be present, but controlled for environmental or investment protections.	Rough and irregular. Travel with low clearance vehicles is difficult. Stable during dry conditions. Rutting and dusting controlled only for soil and water protection.

Road Development

Table A-1 displays the existing and proposed roads by VCU, miles, and clearing acres for each alternative including the Total Rotation (2140). Discrepancies may be found between tables due to rounding.

Table A-1
Existing and New Roads

Alternative 2						
VCU	Existing Roads		Proposed Roads		Total Development	
	Miles	Acres	Miles	Acres	Miles	Acres
732	0.0	0	6.9	63	6.9	63
733	6.7	61	15.5	141	22.2	202
735	1.8	16	16.4	149	18.2	165
736	6.7	61	14.2	129	20.9	190
737	10.2	93	26.4	240	36.6	333
738	21.2	193	37.3	339	58.5	532
739	23.0	209	34.2	311	57.2	520
740	0.0	0	2.4	22	2.4	22
Total	69.6	633	153.3	1,394	222.9	2,027

Alternative 3						
VCU	Existing Roads		Proposed Roads		Total Development	
	Miles	Acres	Miles	Acres	Miles	Acres
732	0.0	0	0.0	0	0.0	0
733	5.6	51	10.6	96	16.2	147
735	1.9	17	11.0	100	12.9	117
736	5.0	46	12.6	114	17.6	160
737	3.3	30	8.2	74	11.5	104
738	13.9	126	30.2	274	44.1	400
739	19.3	176	29.1	264	48.4	440
740	0.0	0	0.6	6	0.6	6
Total	49.0	446	102.3	928	151.3	1,374

Alternative 4

VCU	Existing Roads		Proposed Roads		Total Development	
	Miles	Acres	Miles	Acres	Miles	Acres
732	0.0	0	0.0	0	0.0	0
733	6.7	61	12.5	114	19.2	175
735	1.6	14	13.2	120	14.8	134
736	6.5	59	14.0	127	20.5	186
737	10.8	98	27.4	249	38.1	347
738	14.1	128	15.4	140	29.5	268
739	19.2	174	26.9	244	46.1	418
740	0.0	0	2.9	26	2.9	26
Total	58.9	534	112.3	1,020	171.0	1,554

Alternative 5

VCU	Existing Roads		Proposed Roads		Total Development	
	Miles	Acres	Miles	Acres	Miles	Acres
732	0.0	0	6.7	61	6.7	61
733	6.7	61	14.6	133	21.3	194
735	1.8	16	12.7	116	14.5	132
736	3.4	31	17.6	160	21.0	191
737	11.5	104	31.7	288	43.2	392
738	13.7	124	34.4	313	48.1	437
739	19.1	174	26.8	244	45.9	418
740	0.0	0	2.9	26	2.9	26
Total	56.2	510	147.4	1,340	203.6	1,851

Alternative 6

VCU	Existing Roads		Proposed Roads		Total Development	
	Miles	Acres	Miles	Acres	Miles	Acres
732	0.0	0	0.0	0	0.0	0
733	6.4	58	11.7	106	18.1	164
735	1.9	17	11.0	100	12.9	117
736	5.0	46	11.8	107	16.9	153
737	3.3	30	9.4	86	12.7	116
738	13.9	126	25.7	234	39.7	360
739	19.2	174	29.4	267	48.8	441
740	0.0	0	0.6	6	0.6	6
Total	49.7	451	99.6	906	149.7	1,357

Total Rotation (2140)

VCU	Existing Roads		Proposed Roads		Total Development	
	Miles	Acres	Miles	Acres	Miles	Acres
732	0.0	0	9.3	84	9.3	84
733	8.2	74	20.1	183	28.3	257
735	2.1	19	21.5	196	23.6	215
736	14.0	127	33.0	300	47.0	427
737	14.0	127	45.0	409	59.0	536
738	28.9	263	60.4	549	89.3	812
739	27.2	247	59.5	541	86.7	788
740	13.2	120	16.6	151	29.8	270
Total	107.6	977	265.4	2,413	373.0	3,389

Coordination of Construction With Fish and Wildlife

Table A-2 displays existing, proposed reconstructed and new road development within the 1/2 mile eagle disturbance zone by VCU for each alternative including total rotation (2140).

There are no existing or planned roads within a 330 foot radius of any eagle trees in any alternative. By the year 2140, (in total rotation), 160 - feet of planned road is within 330 - feet of an eagle tree.

Existing roads include those that need reconstruction.

Table A-2
Eagle Disturbance Zones

Alternative 2

VCU	Existing		Reconstruction		Planned	
	Feet*	Acres	Feet*	Acres	Feet*	Acres
732	0	0	0	0	0	0
733	0	0	0	0	0	0
735	7,860	14	5,300	9	8,920	15
736	6,020	10	1,840	3	23,880	41
737	7,380	13	7,240	12	10,220	18
738	25,270	44	3,610	6	20,570	35
739	2,550	4	0	0	12,200	21
740	0	0	0	0	0	0
Total	49,080	85	17,990	31	75,790	130
Miles	9.3		3.4		14.4	

Alternative 3

VCU	Existing		Reconstruction		Planned	
	Feet*	Acres	Feet*	Acres	Feet*	Acres
732	0	0	0	0	0	0
733	0	0	0	0	0	0
735	8,380	14	5,820	10	10,120	17
736	10,150	17	1,840	3	22,500	39
737	7,040	12	6,900	12	5,020	9
738	16,870	29	3,610	6	13,270	23
739	890	2	0	0	11,280	19
740	0	0	0	0	0	0
Total	43,330	74	18,170	31	62,190	107
Miles	8.2		3.4		11.8	

Alternative 4

VCU	Existing		Reconstruction		Planned	
	Feet*	Acres	Feet*	Acres	Feet*	Acres
732	0	0	0	0	0	0
733	0	0	0	0	0	0
735	6,910	12	4,350	7	4,280	7
736	5,690	10	1,510	3	20,270	35
737	7,040	12	6,900	12	10,950	19
738	16,870	29	2,980	5	1,170	2
739	890	2	0	0	4,670	8
740	0	0	0	0	0	0
Total	37,400	65	15,740	27	41,340	71
Miles	7.1		3.0		7.8	

Alternative 5

VCU	Existing		Reconstruction		Planned	
	Feet*	Acres	Feet*	Acres	Feet*	Acres
732	0	0	0	0	0	0
733	0	0	0	0	0	0
735	7,860	14	5,300	9	7,330	13
736	1,510	3	1,510	3	19,860	34
737	7,380	13	7,240	12	12,890	22
738	16,190	28	3,610	6	21,060	36
739	2,550	4	0	0	11,440	20
740	0	0	0	0	0	0
Total	35,490	62	17,660	30	72,580	125
Miles	6.7		3.3		13.8	

Alternative 6

VCU	Existing		Reconstruction		Planned	
	Feet*	Acres	Feet*	Acres	Feet*	Acres
732	0	0	0	0	0	0
733	0	0	0	0	0	0
735	8,380	14	5,820	10	10,120	17
736	10,150	17	1,840	3	20,880	36
737	7,040	12	6,900	12	5,020	9
738	16,870	29	2,980	5	13,270	23
739	890	2	0	0	11,280	19
740	0	0	0	0	0	0
Total	43,330	74	17,540	30	60,570	104
Miles	8.2		3.3		11.5	

Total Rotation (2140)

(There are 160' of planned road within 330' of an eagle tree in VCU 739. The other VCU's have no roads in the 330' zone.)

VCU	Existing		Reconstruction		Planned	
	Feet*	Acres	Feet*	Acres	Feet*	Acres
732	0	0	0	0	0	0
733	0	0	0	0	0	0
735	8,990	15	6,430	11	15,780	27
736	14,350	25	2,980	5	35,760	62
737	8,440	15	6,900	12	17,000	29
738	30,890	53	3,160	5	36,880	64
739	4,380	8	0	0	20,800	36
740	16,400	28	0	0	21,200	36
Total	83,450	144	19,470	33	147,420	254
Miles	15.8		3.7		27.9	

* Linear feet

Table A-3 displays identified AHMU stream crossings by VCU and stream classification for each alternative.

Table A-3
Identified AHMU Stream Crossings

Alternative 2

VCU	I	II	III	Total
732	1	1	2	4
733	3	7	5	15
735	3	5	10	18
736	3	2	16	21
737	11	5	18	34
738	9	7	50	66
739	11	12	35	58
740	0	0	3	3
Total	41	39	139	

Alternative 3

VCU	I	II	III	Total
732	0	0	0	0
733	2	7	2	11
735	2	4	7	13
736	3	3	15	21
737	0	2	2	4
738	2	5	39	46
739	10	12	31	53
740	0	0	1	1
Total	19	33	97	

Alternative 4

VCU	I	II	III	Total
732	0	0	0	0
733	2	7	4	13
735	3	4	8	15
736	3	1	14	18
737	13	5	15	33
738	1	4	25	30
739	9	8	22	39
740	0	0	2	2
Total	31	29	90	

Alternative 5

VCU	I	II	III	Total
732	1	0	2	3
733	3	7	2	12
735	2	4	7	13
736	3	2	16	21
737	13	5	20	38
738	2	8	41	51
739	12	9	25	46
740	0	0	3	3
Total	36	35	116	

Alternative 6

VCU	I	II	III	Total
732	0	0	0	0
733	3	7	2	12
735	2	4	7	13
736	3	3	15	21
737	0	2	3	5
738	2	4	32	38
739	10	12	32	54
740	0	0	1	1
Total	20	32	92	

Total Rotation (2140)

VCU	I	II	III	Total
732	1	1	3	5
733	3	7	5	15
735	4	6	12	22
736	4	4	29	37
737	14	6	28	48
738	9	9	65	83
739	14	15	51	80
740	1	0	15	16
Total	50	48	208	

Table A-4 portrays the identified fish timing, passage, and non-passage by alternative and VCU.

Table A-4
Identified Fish Timing, Passage and Non-passage

Alternative 2

VCU	Timing	Passage	Non-passage
732	0	2	2
733	3	10	5
735	3	8	10
736	4	5	16
737	4	16	18
738	12	16	50
739	6	22	16
740	0	0	3
Total	32	79	140

Alternative 3

VCU	Timing	Passage	Non-passage
732	0	0	0
733	2	9	2
735	2	6	7
736	4	6	15
737	0	2	2
738	4	7	36
739	6	21	32
740	0	0	1
Total	18	51	95

Alternative 4

VCU	Timing	Passage	Non-passage
732	0	0	0
733	2	9	4
735	3	7	8
736	3	4	14
737	6	18	15
738	2	5	25
739	4	16	23
740	0	0	2
Total	20	59	91

Alternative 5

VCU	Timing	Passage	Non-passage
732	0	1	2
733	3	10	2
735	2	6	7
736	4	5	16
737	6	18	20
738	4	10	41
739	5	20	26
740	0	0	3
Total	24	70	117

Alternative 6

VCU	Timing	Passage	Non-passage
732	0	0	0
733	3	10	2
735	3	6	7
736	4	6	15
737	0	2	3
738	3	6	32
739	6	21	33
740	0	0	3
Total	19	51	93

Total Rotation (2140)

VCU	Timing	Passage	Non-passage
732	0	2	3
733	3	10	5
735	4	10	12
736	6	8	29
737	6	20	28
738	12	18	65
739	8	28	52
740	1	1	15
Total	40	97	209

TTRA and AHMU Prescription Zones

Tables A-5 thru A-11 display the existing and planned roads within the various TTRA and AHMU prescription zones for each alternative. The zones are as follows:

TTRA Stream Zones (Tongass Timber Reform Act)
 TTRA Lake Zones (Tongass Timber Reform Act)
 AHMU Lake Prescription Zone (TLMP Revision)
 Estuarine Prescription Zone (Beach Fringe and Estuarine Prescription, TLMP Revision)
 Beach Fringe Prescription Zone (Beach Fringe and Estuarine Prescription, TLMP Revision)
 AHMU Stream Prescription Zone (No Cut) (TLMP Revision)
 AHMU Stream Prescription Zone (Partial Cut) (TLMP Revision)

Table A-5 displays the existing and planned roads within the TTRA Stream Buffer by VCU, road segment in miles, and clearing limit acreage for each alternative.

Table A-5

Planned and Existing Roads in the TTRA Stream Zone

Alternative 2

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	820	1
733	5,290	9	170	1
735	140	1	1,490	3
736	0	0	0	0
737	2,750	5	1,360	2
738	5,970	10	1,870	3
739	2,890	5	1,150	2
740	0	0	0	0
Total	17,040	29	6,860	11
Miles	3.2		1.3	

Alternative 3

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	2,510	4	80	1
735	140	1	490	1
736	0	0	0	0
737	0	0	340	1
738	1,330	2	930	2
739	2,730	5	1,140	2
740	0	0	0	0
Total	6,710	11	2,980	6
Miles	1.3		0.6	

Alternative 4

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	5,560	10	90	1
735	140	1	1,300	2
736	0	0	0	0
737	2,760	5	1,360	2
738	1,580	3	0	0
739	2,560	4	570	1
740	0	0	0	0
Total	12,600	22	3,320	5
Miles	2.4		0.6	

Alternative 5

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	820	1
733	5,290	9	170	1
735	140	1	1,430	2
736	0	0	0	0
737	2,750	5	1,360	2
738	1,600	3	980	2
739	2,730	5	1,160	2
740	0	0	0	0
Total	12,510	22	5,920	9
Miles	2.4		1.1	

Alternative 6

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	5,290	9	170	1
735	140	1	490	1
736	0	0	0	0
737	0	0	340	1
738	980	2	360	1
739	2,730	5	1,150	2
740	0	0	0	0
Total	9,140	16	2,510	5
Miles	1.7		0.5	

Total Rotation (2140)

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	820	1
733	7,570	13	230	1
735	600	1	2,000	3
736	470	1	0	0
737	2,910	5	2,080	4
738	6,140	11	2,010	3
739	3,360	6	1,860	3
740	7,440	13	380	1
Total	28,490	50	9,380	15
Miles	5.4		1.8	

Table A-6 displays the existing and planned roads within the TTRA Lake Zone by VCU, road segment in miles, and clearing limit acreage for each alternative.

Table A-6
Planned and Existing Roads in the TTRA Lake Zone

Alternative 2

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	220	1
733	0	0	140	1
735	0	0	490	1
736	0	0	0	0
737	0	0	0	0
738	690	1	0	0
739	0	0	0	0
740	0	0	0	0
Total	690	1	850	1
Miles	0.1		0.2	

Alternative 3

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	0	0	0	0
735	0	0	490	1
736	0	0	0	0
737	0	0	0	0
738	90	1	0	0
739	0	0	0	0
740	0	0	0	0
Total	90	1	490	1
Miles	0.1		0.1	

Alternative 4

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	0	0	0	0
735	0	0	490	1
736	0	0	0	0
737	0	0	0	0
738	0	0	0	0
739	0	0	0	0
740	0	0	0	0
Total	0	0	490	1
Miles	0.0		0.1	

Alternative 5

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	220	1
733	0	0	140	1
735	0	0	490	1
736	0	0	0	0
737	0	0	0	0
738	0	0	0	0
739	0	0	0	0
740	0	0	0	0
Total	0	0	850	1
Miles	0.0		0.2	

Alternative 6

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	0	0	0	0
735	0	0	490	1
736	0	0	0	0
737	0	0	0	0
738	0	0	0	0
739	0	0	0	0
740	0	0	0	0
Total	0	0	490	1
Miles	0.0		0.1	

Total Rotation (2140)

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	220	1
733	0	0	140	1
735	0	0	490	1
736	0	0	0	0
737	140	1	340	1
738	380	1	0	0
739	0	0	0	0
740	180	1	0	0
Total	700	1	1,190	2
Miles	0.1		0.2	

Table A-7 displays the existing and planned roads within the AHMU Lake Prescription Zone by VCU, road segment in miles, and clearing limit acreage for each alternative.

Table A-7

Planned and Existing Roads in the AHMU Lake Prescription Zone

Alternative 2

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	11,650	20
733	1,400	2	4,580	8
735	0	0	3,370	6
736	0	0	3,230	6
737	3,360	6	0	2
738	6,160	11	1,440	2
739	6,450	11	830	1
740	0	0	0	0
Total	17,370	30	25,100	45
Miles	3.3		4.8	

Alternative 3

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	1,400	2	1,250	2
735	0	0	2,530	4
736	0	0	3,270	6
737	0	0	0	0
738	790	1	1,440	2
739	6,090	11	1,290	2
740	0	0	0	0
Total	8,280	14	9,780	16
Miles	1.6		1.8	

Alternative 4

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	1,400	2	1,200	2
735	0	0	2,510	4
736	0	0	3,230	6
737	3,070	5	0	0
738	710	1	0	0
739	6,030	10	1,290	2
740	0	0	0	0
Total	11,210	18	8,280	14
Miles	2.1		1.6	

Alternative 5

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	11,060	19
733	1,400	2	3,840	7
735	0	0	2,510	4
736	0	0	1,290	2
737	3,070	5	0	0
738	710	1	1,440	2
739	6,160	11	1,770	3
740	0	0	0	0
Total	11,340	19	21,910	37
Miles	2.2		4.2	

Alternative 6

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	1,400	2	1,250	2
735	0	0	2,510	4
736	0	0	3,230	6
737	0	0	0	0
738	710	1	0	0
739	5,950	10	1,290	2
740	0	0	0	0
Total	8,060	13	8,280	14
Miles	1.5		1.6	

Total Rotation (2140)

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	13,280	23
733	1,400	2	4,580	8
735	0	0	3,460	6
736	310	1	3,470	6
737	5,640	10	2,070	4
738	5,930	10	1,440	2
739	6,160	11	1,770	3
740	3,420	6	410	1
Total	22,860	40	30,480	53
Miles	4.3		5.8	

Table A-8 display the existing and planned roads within the Estuarine Prescription Zone by VCU, road segment in miles, and clearing limit acreage for each alternative.

Table A-8
Planned and Existing Roads in the Estuarine Prescription Zone

Alternative 2

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	2,440	4	160	1
735	780	1	4,840	8
736	0	0	0	0
737	3,270	6	1,520	3
738	4,590	8	600	1
739	0	0	3,430	6
740	0	0	0	0
Total	11,080	19	10,550	18
Miles	2.1		2.0	

Alternative 3

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	2,460	4	120	1
735	810	1	2,740	5
736	0	0	0	0
737	630	1	0	0
738	4,550	8	600	1
739	0	0	120	1
740	0	0	0	0
Total	8,450	14	3,580	6
Miles	1.6		0.7	

Alternative 4

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	2,440	4	160	1
735	780	1	3,850	7
736	0	0	0	0
737	3,160	5	1,440	2
738	4,550	8	0	0
739	0	0	0	0
740	0	0	0	0
Total	10,930	18	5,450	9
Miles	2.1		1.0	

Alternative 5

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	2,440	4	160	1
735	780	1	3,970	7
736	0	0	0	0
737	3,160	5	1,440	2
738	4,550	8	0	0
739	0	0	530	1
740	0	0	0	0
Total	10,930	18	6,100	10
Miles	2.1		1.2	

Alternative 6

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	1,500	3	0	0
735	100	1	1,670	3
736	1,770	3	990	2
737	660	1	0	0
738	0	0	6,360	11
739	0	0	1,860	3
740	0	0	0	0
Total	4,030	7	10,880	19
Miles	0.8		2.1	

Total Rotation (2140)

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	2,440	4	360	1
735	780	1	5,620	10
736	0	0	0	0
737	3,150	5	1,440	2
738	4,550	8	890	2
739	0	0	9,960	17
740	0	0	0	0
Total	10,920	18	18,270	32
Miles	2.1		3.5	

Table A-9 displays the existing and planned roads within the Beach Fringe Prescription Zone by VCU, road segment in miles, and clearing limit acreage for each alternative.

Table A-9
Planned and Existing Roads in the Beach Fringe Prescription Zone

Alternative 2

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	1,500	3	0	0
735	100	1	1,670	3
736	1,770	3	650	1
737	1,020	2	830	1
738	0	0	6,360	11
739	0	0	2,060	4
740	0	0	0	0
Total	4,390	8	11,570	20
Miles	0.8		2.2	

Alternative 3

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	1,500	3	0	0
735	100	1	1,670	3
736	1,770	3	990	2
737	660	1	0	0
738	0	0	6,360	11
739	0	0	1,860	3
740	0	0	0	0
Total	4,030	7	10,880	19
Miles	0.8		2.1	

Alternative 4

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	1,500	3	0	0
735	120	1	1,670	3
736	1,800	3	650	1
737	1,020	2	370	1
738	0	0	280	1
739	0	0	0	0
740	0	0	0	0
Total	4,440	8	2,970	5
Miles	0.8		0.6	

Alternative 5

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	1,500	3	0	0
735	120	1	1,670	3
736	0	0	650	1
737	1,020	2	370	1
738	0	0	6,080	10
739	0	0	2,070	4
740	0	0	0	0
Total	2,640	5	10,840	19
Miles	0.5		2.1	

Alternative 6

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	2,440	4	160	1
735	780	1	2,740	5
736	0	0	0	0
737	630	1	0	0
738	4,550	8	600	1
739	0	0	120	1
740	0	0	0	0
Total	8,400	14	3,620	6
Miles	1.6		0.7	

Total Rotation (2140)

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	1,500	3	0	0
735	120	1	2,380	4
736	3,840	7	4,730	8
737	1,360	2	830	1
738	5,420	9	7,480	13
739	0	0	2,060	4
740	880	2	0	0
Total	13,120	23	17,480	30
Miles	2.5		3.3	

Table A-10 displays the existing and planned roads within the AHMU Prescription zone (No Cut) by VCU, road segment in miles, and clearing limit acreage for each alternative.

Table A-10

Planned and existing Roads in the AHMU Stream Prescription Zone (No Cut)

Alternative 2

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	2,950	5	0	0
735	0	0	250	1
736	0	0	0	0
737	230	1	340	1
738	2,660	5	0	0
739	3,110	5	0	0
740	0	0	0	0
Total	8,950	15	590	1
Miles	1.7		0.1	

Alternative 3

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	2,950	5	0	0
735	0	0	250	1
736	0	0	0	0
737	0	0	0	0
738	1,980	3	0	0
739	3,120	5	0	0
740	0	0	0	0
Total	8,050	13	250	1
Miles	1.5		0.1	

Alternative 4

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	2,900	5	0	0
735	0	0	250	1
736	0	0	0	0
737	230	1	340	1
738	1,980	3	0	0
739	3,120	5	0	0
740	0	0	0	0
Total	8,230	13	590	1
Miles	1.6		0.1	

Alternative 5

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	2,950	5	0	0
735	0	0	250	1
736	0	0	0	0
737	230	1	340	1
738	1,980	3	0	0
739	3,120	5	80	1
740	0	0	0	0
Total	8,280	13	670	1
Miles	1.6		0.1	

Alternative 6

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	2,950	5	0	0
735	0	0	250	1
736	0	0	0	0
737	0	0	0	0
738	1,980	3	0	0
739	3,110	5	0	0
740	0	0	0	0
Total	8,040	13	250	1
Miles	1.5		0.1	

Total Rotation (2140)

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	3,180	5	0	0
735	0	0	250	1
736	0	0	0	0
737	230	1	700	1
738	2,910	5	60	1
739	2,980	5	80	1
740	0	0	0	0
Total	9,300	15	1,090	1
Miles	1.8		0.2	

Table A-11 displays the existing and planned roads within the AHMU Prescription Zone (Partial Cut) by VCU, road segment in miles, and clearing limit acreage for each alternative.

Table A-11

Planned and Existing Roads in the AHMU Stream Prescription Zone (Partial Cut)

Alternative 2

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	580	1
733	0	0	0	0
735	0	0	0	0
736	0	0	0	0
737	0	0	0	0
738	740	1	210	1
739	1,110	2	0	0
740	0	0	0	0
Total	1,850	3	790	1
Miles	0.4		0.2	

Alternative 3

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	0	0	0	0
735	0	0	0	0
736	0	0	0	0
737	0	0	0	0
738	740	1	210	1
739	1,110	2	0	0
740	0	0	0	0
Total	1,850	3	210	1
Miles	0.4		0.1	

Alternative 4

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	0	0	0	0
735	0	0	0	0
736	0	0	0	0
737	0	0	0	0
738	730	1	0	0
739	950	2	0	0
740	0	0	0	0
Total	1,680	3	0	0
Miles	0.3		0.0	

Alternative 5

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	580	1
733	0	0	0	0
735	0	0	0	0
736	0	0	0	0
737	0	0	0	0
738	740	1	190	1
739	950	2	0	0
740	0	0	0	0
Total	1,690	3	770	1
Miles	0.3		0.2	

Alternative 6

VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	0	0
733	0	0	0	0
735	0	0	0	0
736	0	0	0	0
737	0	0	0	0
738	740	1	0	0
739	1,110	2	0	0
740	0	0	0	0
Total	1,850	3	0	0
Miles	0.4		0.0	

Total Rotation 2140

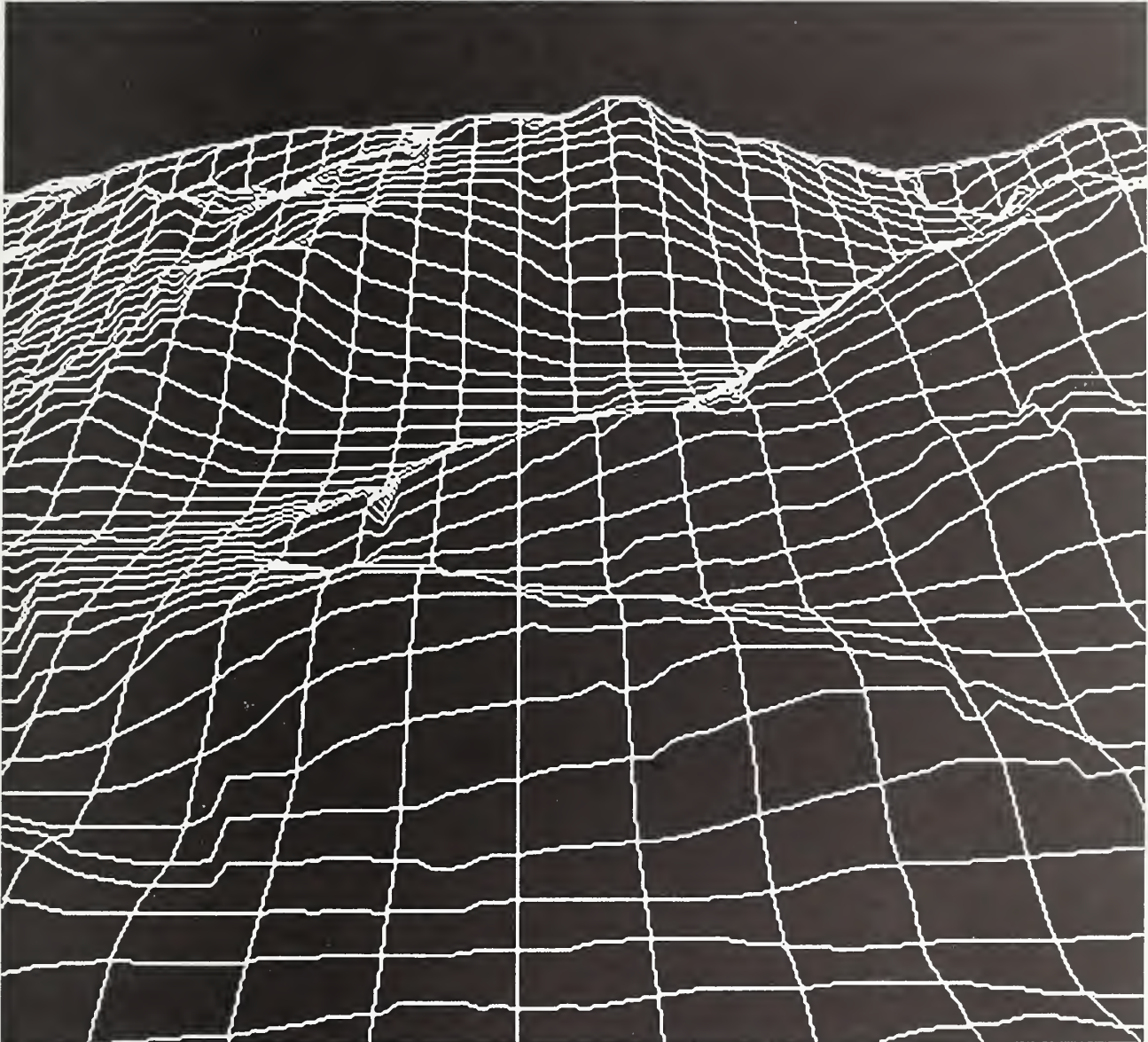
VCU	Existing		Planned	
	Feet	Acres	Feet	Acres
732	0	0	580	1
733	0	0	0	0
735	0	0	0	0
736	510	1	0	0
737	0	0	0	0
738	740	1	210	1
739	1,360	2	0	0
740	260	1	0	0
Total	2,870	4	790	1
Miles	0.5		0.2	

Appendix F

Perspective Plots

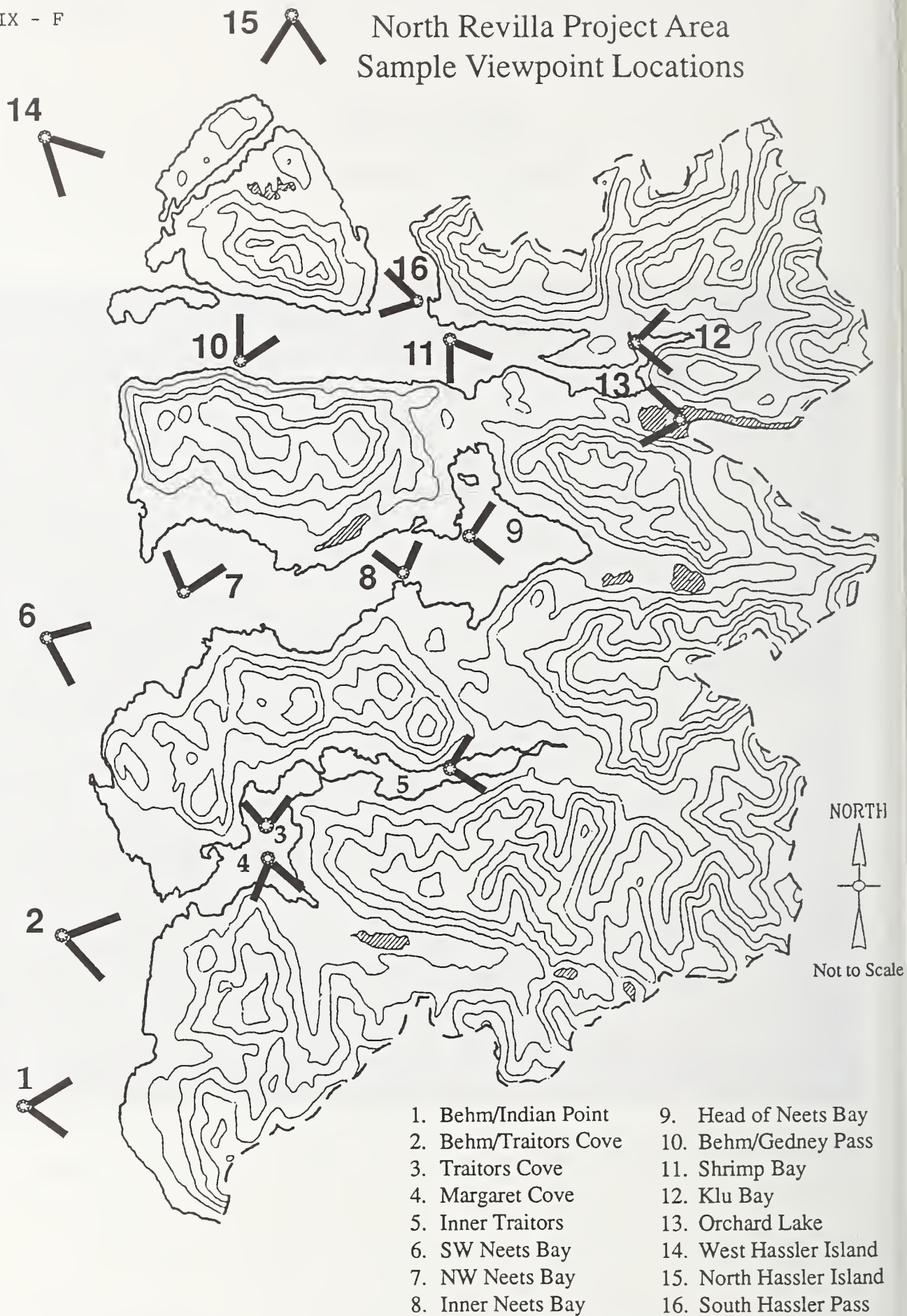
PERSPECTIVE PLOTS

Effects of the Alternatives



(Aerial perspective overlooking Francis Cove valley from West Behm Canal)

North Revilla Project Area Sample Viewpoint Locations



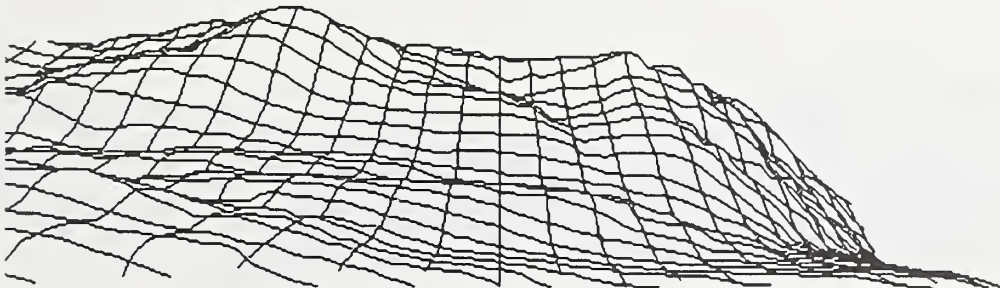
1. Behm Canal at Indian Point - Indian Point to Francis Cove

This 2,036-acre saltwater viewshed is the first in the Project Area encountered while traveling north from the Clover Pass Scenic Area near Ketchikan, and can be seen from the North Point Higgins area. It is adjacent to the Naha Roadless Area. The landscape character consists of an area one-half to one mile in width with less than 25 percent slopes on interspersed hills and knobs. The landform then rises steeply to 2,500-foot ridge tops in the middleground. These slopes face southwest to west towards the Naha and Clover Pass areas and Point Francis on the Cleveland Peninsula across Behm Canal. The visual sensitivity of this viewshed makes it a focal point and a subject for much public concern.

Due to the scope and scale of recent harvest (1990) on these highly visible slopes, this area does not meet the proposed VQO of Modification in the middleground. However, the foreground areas do meet the proposed VQO of Partial Retention.

Alternative 1 - No Action

The Existing Visual Condition (EVC) of this viewshed is heavily altered (V). Of the existing 255 acres of timber harvest, 231 acres (or 11.3 percent of this viewshed) remain visually disturbed. It, however, will meet the VQO sooner if mitigating actions (through rehabilitation) are taken to change the shape of the largest harvest unit (119 acres) from its geometric appearance to one that resembles a natural opening (one that borrows from naturally established forms and lines). Without these changes, the Future Visual Condition (FVC) for this viewshed would remain heavily altered (V) for the next 20--25-years.



2. Behm Canal at Traitors Cove - Francis Cove to Bushy Point

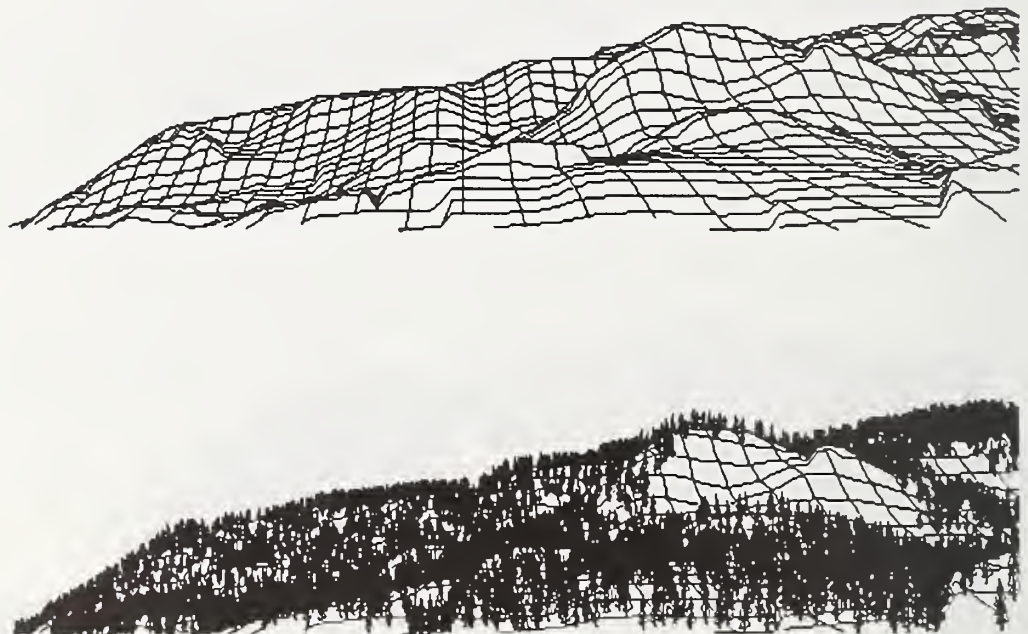
This 4,079-acre saltwater viewshed continues with the mile-wide shelf in the foreground with moderate slopes to under 1,500-foot elevation. The "viewframe" is bisected by the entrance to Traitors Cove with background views of terrain inside the cove. The most recent harvest (1990) is seen on the south-side of the entrance (VCU 740), as shown in the above graphic, and is located on steep sloped knobs facing the viewer. Currently, this area does not meet the proposed VQO of Modification.

The north-side of the cove (VCU 738), due to its flat terrain in the foreground mile-wide shelf, is mostly unseen as well as unaltered (not shown in above graphic). The middleground consists of steep slopes rising to nearly 1,500-foot ridgetop and faces southwest towards the viewer. These slopes were harvested in 1958, have regenerated to approximately 50 to 55 feet high.

Currently, this part of the viewshed meets the proposed VQO's of Partial Retention in the foreground and Modification in the middleground.

Alternative 1 - No Action

The Existing Visual Condition this viewshed ranges from natural condition (I) to slightly altered (III) on the north-side of the Cove entrance to moderately altered (IV) south of the entrance. Although 890 acres have been harvested since the late 1950's, 371 seen acres (or 9.1 percent of this viewshed) remain visually disturbed, mostly on the south-side. The Future Visual Condition (FVC) would remain the same except for continuing change in tree height, color and texture.





Alternative 2



Alternative 3



Alternative 4



Alternative 5



Alternative 6

3. Traitors Cove Viewshed - From Virgin Bay to Margaret LTF

This 2,713-acre saltwater viewshed is comprised of a 270 degree "viewframe" from a westerly view of Behm Canal to just north of an existing Log Transfer Facility (LTF) on the eastern shore of the cove. This viewshed consists of moderate to steep slopes angled toward the viewer in a bowl effect. Past harvest has occurred along the west-shore in the late 1950's; on middleground slopes above the north-shore in the mid-1980's; and on the east-shore middleground slopes in the early 1960's.

Currently, this viewshed meets the proposed VQO's of Modification in the foreground and Maximum Modification in the middleground.

Alternative 1 - No Action

The Existing Visual Condition of this viewshed ranges from slightly altered (III) to moderately altered (IV). Of the 725 seen acres harvested since 1958, 126 acres (or 4.6 percent of the viewshed) remain visually disturbed. The FVC would remain the same except for a change in tree height, color and texture.





Alternative 2



Alternative 3



Alternative 4



Alternative 5



Alternative 6

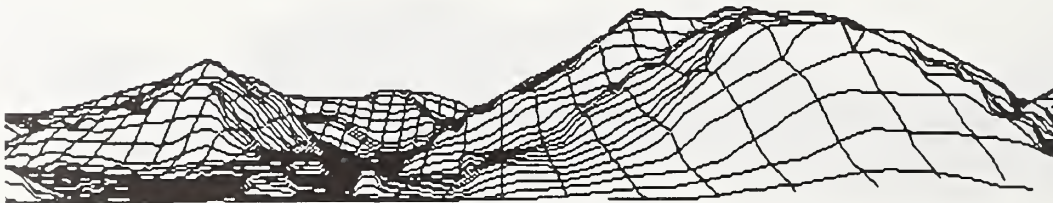
4. Margaret Cove Viewshed

Located southeast of Traitors Cove, this 2,021-acre saltwater viewshed consists of a deeply indented canyon with extensive harvesting in evidence along a wide bottomed valley straddling Margaret Creek and Lake. The view from saltwater is located near the existing LTF on the eastern shore. Due to the wide flat-bottom nature of this viewshed, over 66 percent is unseen. Primarily, the immediate foreground (private land) and the far distant middleground slopes from the 500 to 1,000-foot elevations are the only areas visible.

This viewshed currently meets the proposed VQO's of Modification in the foreground and Maximum Modification in the middleground.

Alternative 1 - No Action

The Existing Visual Condition of this saltwater viewshed is slightly altered (III). Of 509 seen acres harvested since 1957, only 18 acres (or .9 percent of the viewshed) remain visually disturbed. The Future Visual Condition would remain the same, except for changes in tree height, color and texture.





Alternative 2



Alternative 3



Alternative 4



Alternative 5



Alternative 6

5. Inner Traitors Cove Viewshed - At the head of Traitors Cove

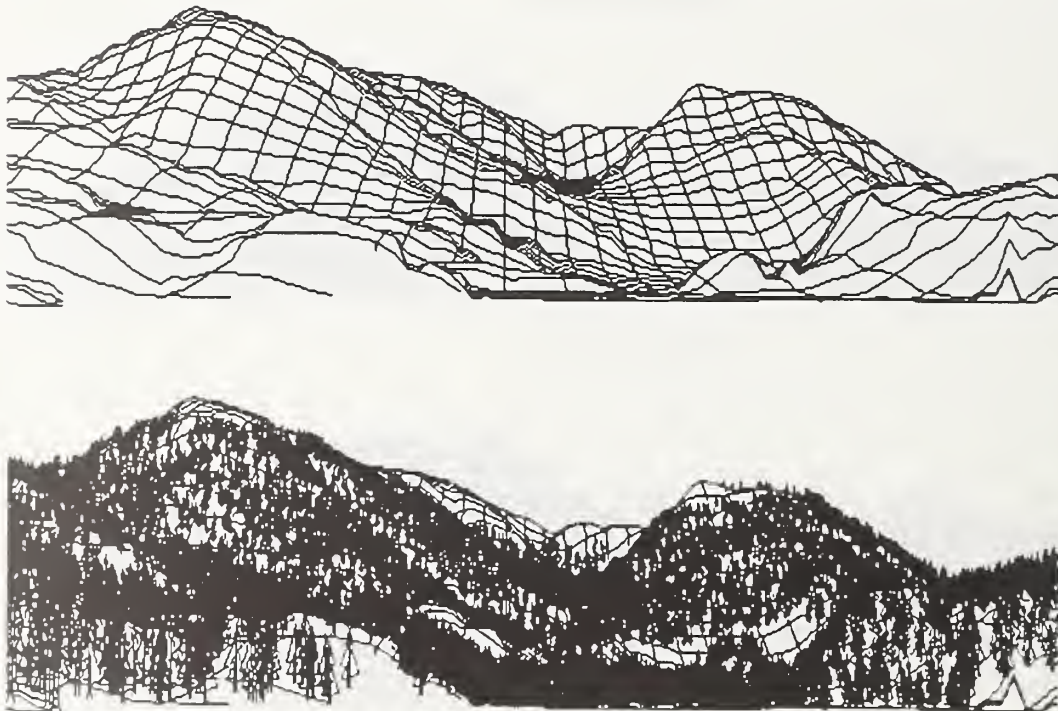
This 8,078-acre saltwater viewshed has some unique features in the context of the Project Area. Public scoping revealed a concern for the scenic quality in this area. It begins at a salt chuck, twists and turns for four miles, averaging one-quarter mile in width, and features the earliest timber harvest entry on the Project Area (1942). The landscape character can best be described as intimate, owing to the vertical nature of the canyon walls, heavy old-growth forest close to the viewer, and the absence of any long views.

This viewshed, the largest in the Project, is primarily located on either side of the cove up to 1,000 to 1,500-foot elevations. Middleground views are found at the head of the cove above Traitors Creek. In addition to the 1942 entry, this viewshed has seen activity in all decades for a total of 1,077 seen acres. Most of the visible harvest occurred along the shorelines.

Currently, this viewshed meets the proposed VQO's of Partial Retention in the foreground and Modification in the middleground.

Alternative 1 - No Action

The Existing Visual Condition of this viewshed ranges from slightly altered (III) on the north, northeast, and southwest shore; moderately altered (IV) on the northwest and southeast shore; and natural condition (I) on the upper middleground slopes at the head of the cove. Of the 1,077 seen acres harvested, 788 acres (or 9.8 percent of the viewshed) remain visually disturbed. The FVC would remain the same, except for a change in tree height, color and texture.

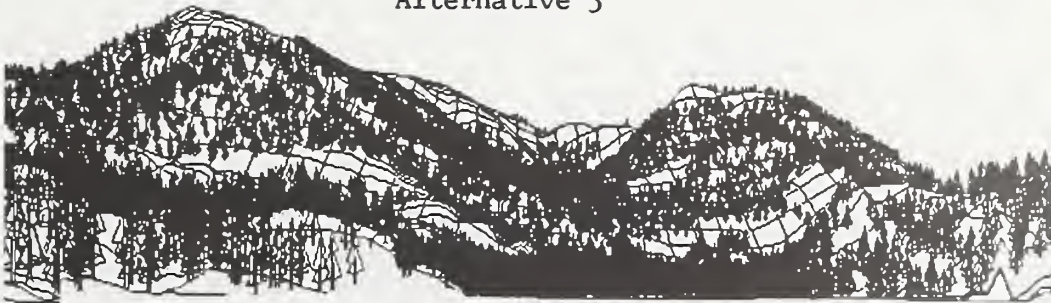




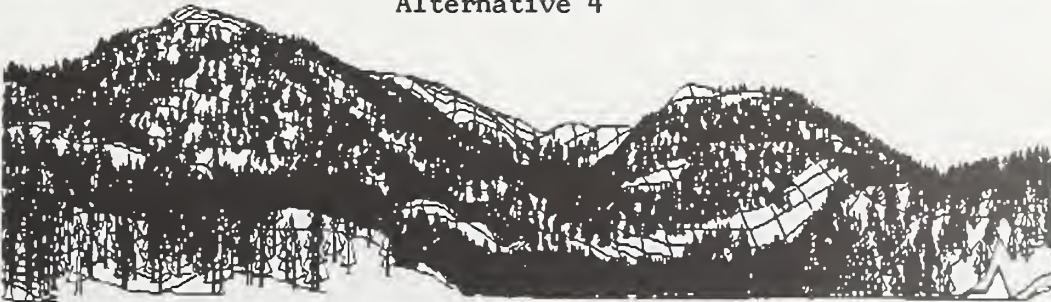
Alternative 2



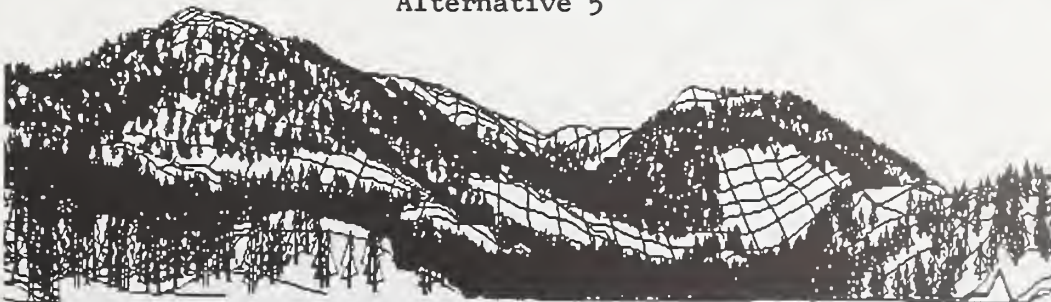
Alternative 3



Alternative 4



Alternative 5



Alternative 6

6. Behm Canal at Southwest Neets Bay - Bushy Pt. to Bug Island

This 2,114-acre saltwater viewshed is located in VCU 736. All harvest in this area has occurred since 1985 on the middleground slopes and draws much attention due to the sharp differences in color, edge and line contrasts, and scale of harvest, resulting in heavily altered visual impacts.

Due to this recent harvest, this area currently does not meet the proposed Modification VQ0 for middleground views. However, it meets the proposed VQ0 of Partial Retention for foreground views.

Alternative 1 - No Action

The Existing Visual Condition of this viewshed is heavily altered (V). Of the 476 seen acres harvested since 1960, 412 acres (or 19.5 percent of the viewshed) remain visually disturbed. The Future Visual Condition would remain the same, except for continuing change in tree height, color and texture.





Alternative 2



Alternative 3



Alternative 4



Alternative 5



Alternative 6

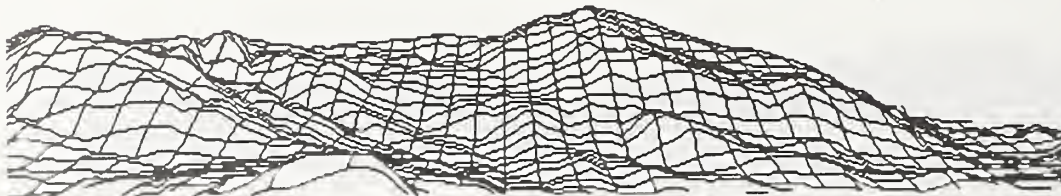
7. Behm Canal at NW Neets Bay - Brow Point to Bug Island

This 5,256-acre saltwater viewshed features the prominent Chin Point, a local landmark. After a boater rounds the headland of SW Neets Bay, the view of Chin Point and the ridge tops at the 2,000- to 2,500-foot elevations, remain in the "viewframe" for an extended time. Harvesting has not occurred in this area since the mid-1970's.

Currently, this viewshed meets the proposed VQO's as noted below. The western-half of this saltwater viewshed is considered more sensitive visually to Behm Canal observers. The proposed VQO's in this area are Partial Retention in the foreground and Modification in the middleground. The eastern half has proposed VQO's of Modification in the foreground, and Maximum Modification in the middleground.

Alternative 1 - No Action

The Existing Visual Condition of this viewshed appears as slightly altered (III) in both foreground and middleground. Of 408 seen acres harvested since 1960, only 113 (or 2.1 percent of the viewshed) remain visually disturbed. Left unchanged, the FCVD would improve to a natural appearing condition (II).

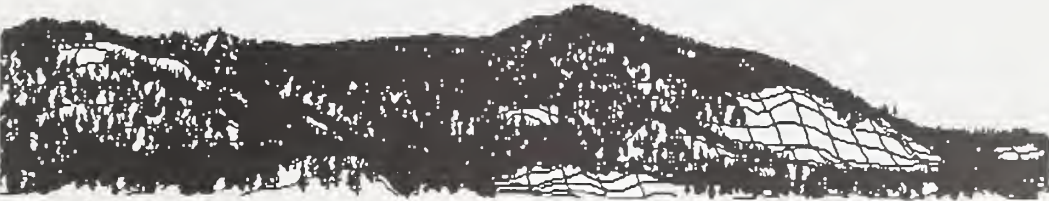




Alternative 2



Alternative 3



Alternative 4



Alternative 5



Alternative 6

8. Inner Neets Bay - Bug Island to Easy and Vox Points

This 3,834-acre saltwater viewshed is located between Behm Canal and the head of Neets Bay along both north and south shores of Neets Bay. Its terrain features are similiar to both NW and SW Neets Bay viewsheds as discussed above. Although harvest has occurred in this area since 1955, most has regenerated to 48 to 58 feet.

Currently, this viewshed meets the proposed VQO's of Modification in the foreground and Maximum Modification in the middleground.

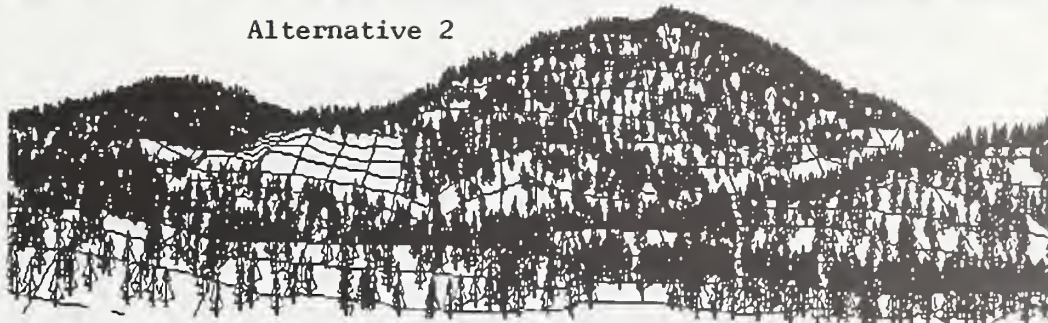
Alternative 1 - No Action

The Existing Visual Condition of this viewshed ranges from slightly altered (III) on the north side of the bay to moderately altered (IV) on the south side. Of the 1,148 seen acres harvested since 1955, only 142 acres (or 3.7 percent of the viewshed) remains visually disturbed. The Future Visual Condition would remain the same except for the continuing change in tree height, color and texture.

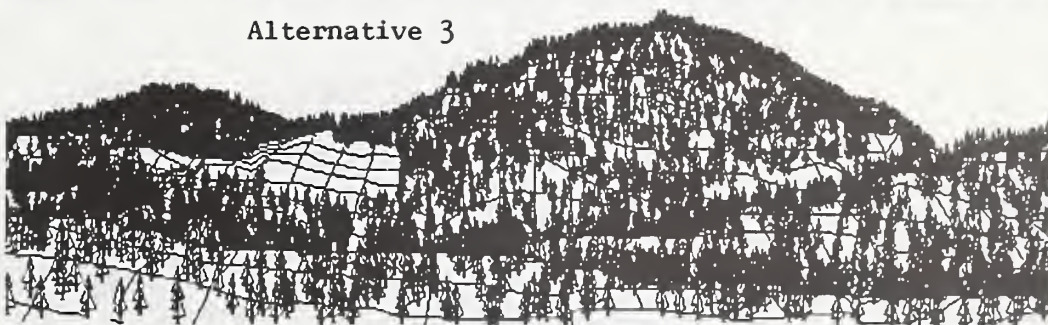




Alternative 2



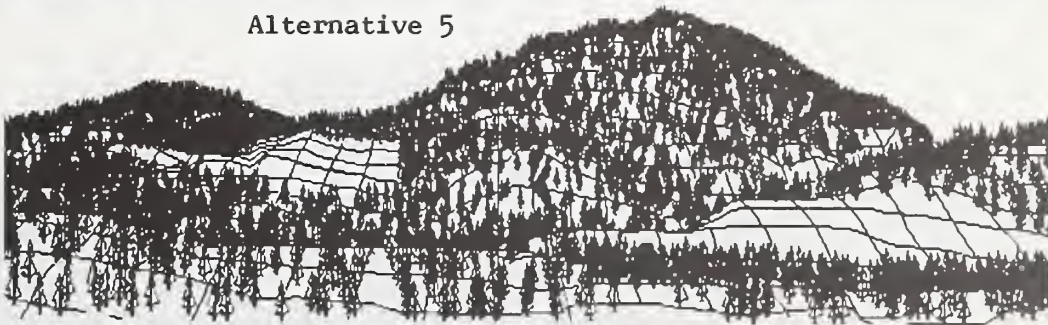
Alternative 3



Alternative 4



Alternative 5



Alternative 6

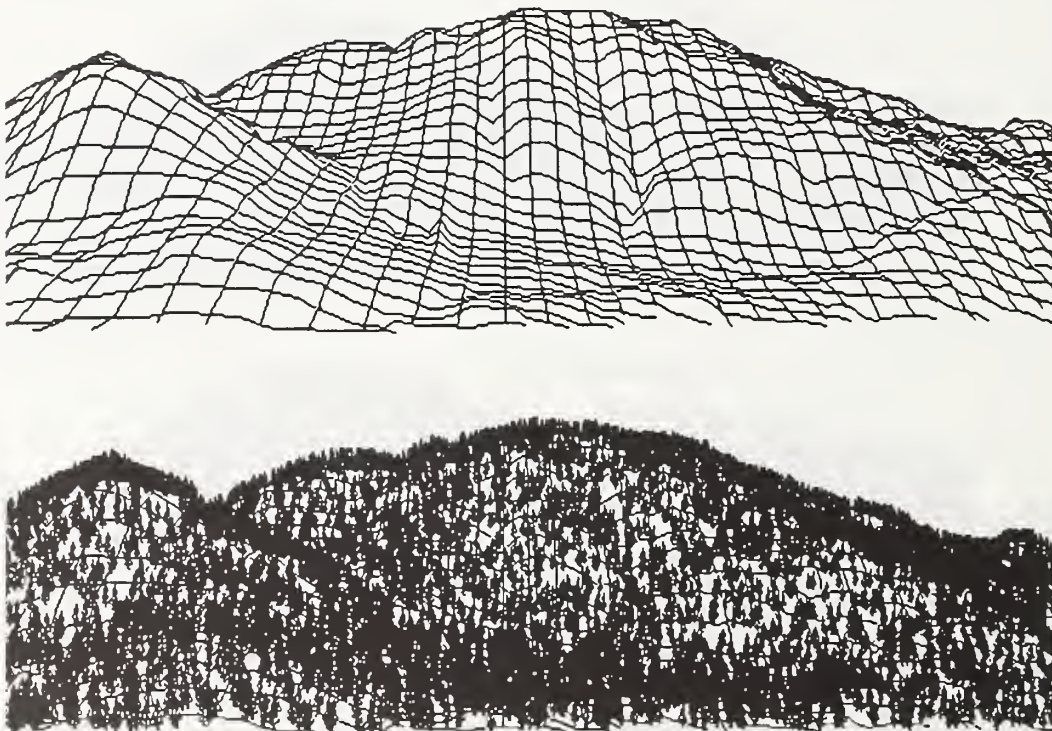
9. Head of Neets Bay - Easy Point to SSRAA Fish Hatchery

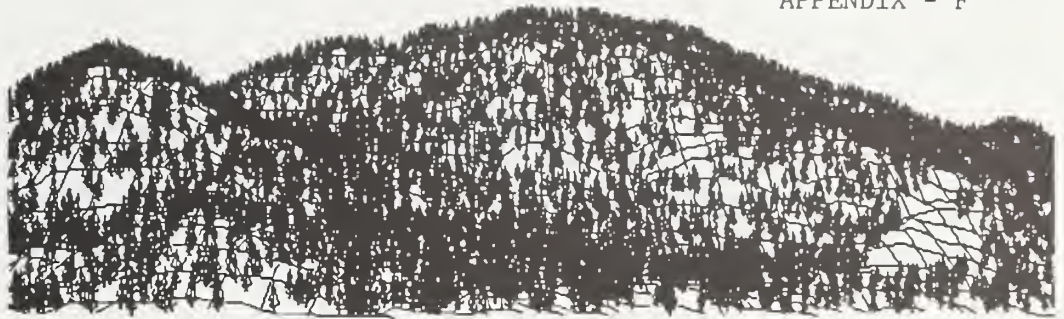
This 6,036-acre saltwater viewshed is located within VCU 737. An anchorage and private fish hatchery are located at the head of this bay resulting in moderate boating activity.

Currently, this viewshed meets the proposed VQO's of Partial Retention in the foreground and Modification in the middleground.

Alternative 1 - No Action

The Existing Visual Condition of this viewshed ranges from slightly altered (III) to moderately altered (IV). Of the 1,545 seen acres harvested since 1953, only 85 acres (or 1.4 percent of the viewshed) remain visually disturbed. The Future Visual Condition and landscape mosaic would remain the same except for continuing changes in tree height, color and texture.

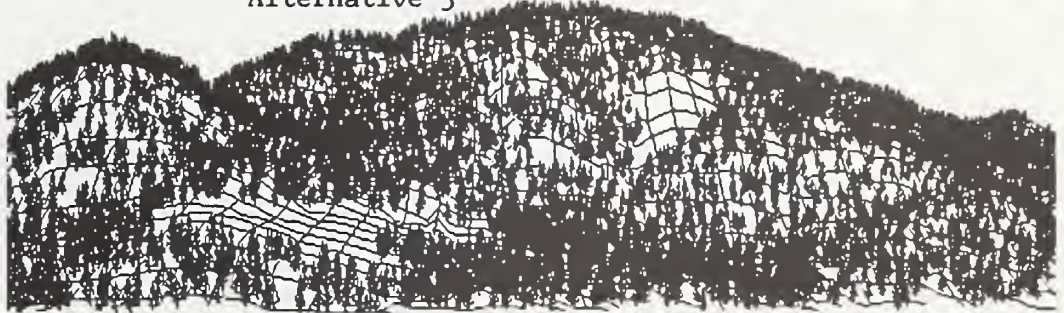




Alternative 2



Alternative 3



Alternative 4



Alternative 5



Alternative 6

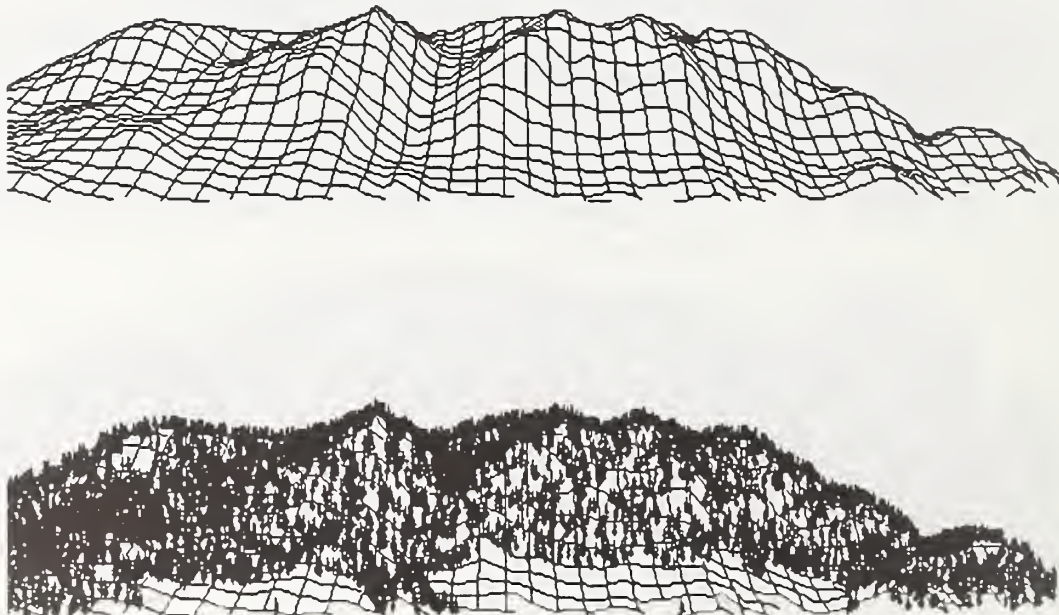
10. Behm Canal at Gedney Pass - Brow Point to Dress Point

This 4,018-acre saltwater viewshed comprises the south shore of Gedney Pass and the south shore of Hassler Island (southern half of VCU 735). Harvest occurred along the shorelines in late 1950's to early 1960's, and is approximately 50 feet in height. The slopes above these harvested areas rise steeply and evenly without much variation, except for rock outcrops, to 2,000 to 2,500-foot ridge tops.

This viewshed currently meets the proposed VQO's of Partial Retention in the foreground and Modification in the middleground.

Alternative 1 - No Action

The Existing Visual Condition of Hassler Island appear as moderately altered (IV), and the south shore of Gedney Pass appears as slightly altered (III). Of the 1,035 acres of original harvest, only 224 acres (or 5.6 percent of the viewshed) remain visually disturbed. The Future Visual Condition and landscape mosaic would remain the same except for continuing changes in tree height, color and texture.





Alternative 2



Alternative 3



Alternative 4



Alternative 5



Alternative 6

11. Shrimp Bay - Dress Point to Orchard Lake Falls

This 3,812-acre saltwater viewshed comprises the shorelines near Dress Point and the south shores of Shrimp Bay, including a heavily altered peninsula. Harvested in the late 1950's, regeneration has been slowed from the effects of poor soil characteristics and a wildfire. Extremely steep slopes are found north of Shrimp Bay while south to southeast views are of 400 to 600-foot cliffs rising to a flattened shelf, then rising steeply to 2600-foot ridgetops in the middleground.

Currently, this viewshed meets the proposed VQO's of Partial Retention in foreground and Modification in middleground.

Alternative 1 - No Action

The Existing Visual Condition is from natural appearing (II) on the south shore's middleground slopes to moderately altered (IV) along the north shorelines. Of the 868 seen acres harvested, only 182 acres (or 4.8 percent of the viewshed) remain visually disturbed. The Future Visual Condition and landscape mosaic will remain the same except for continuing changes in tree height, color and texture.





Alternative 2



Alternative 3



Alternative 4



Alternative 5



Alternative 6

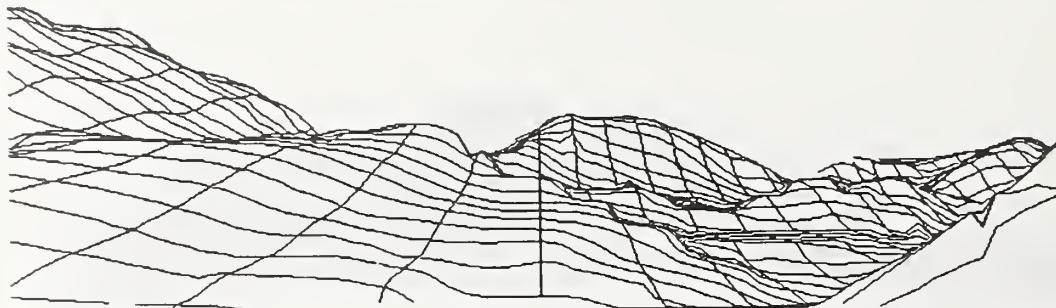
12. Klu Bay Viewshed - Off of Shrimp Bay

This 2,473-acre saltwater viewshed is located just north of the Orchard Lake waterfalls at the head of Shrimp Bay. Visually, it is affected by the burned peninsula mentioned above as well as 35-year-old harvest areas in the immediate foreground.

Currently, this viewshed meets the proposed VQO's of Partial Retention in the foreground and Modification in the middleground.

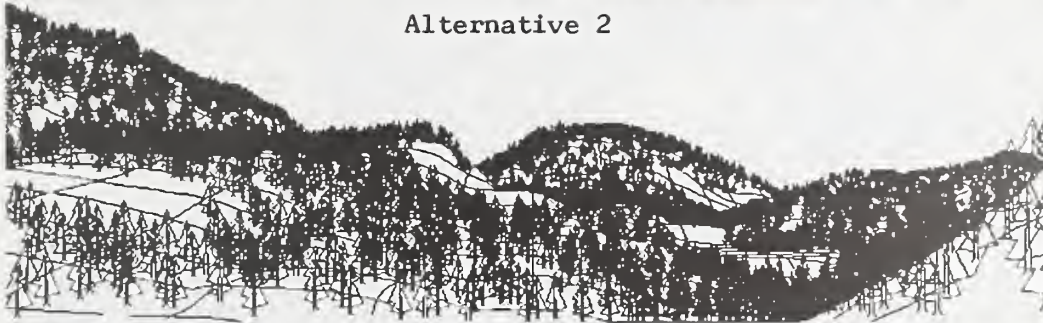
Alternative 1 - No Action

The Existing Visual Condition ranges from natural condition (I) on the northwestern and northern slopes to moderately altered (IV) on the eastern and southeastern slopes. Of the 342 seen acres harvested since 1957, only 88 acres (or 3.6 percent of the viewshed) remain visually disturbed. Left unchanged, the Future Visual Condition and landscape mosaic would remain the same except for continuing change in tree height, color and textures.

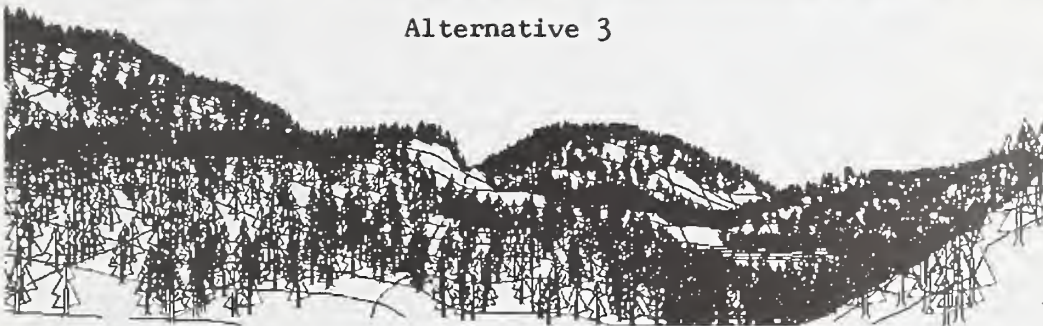




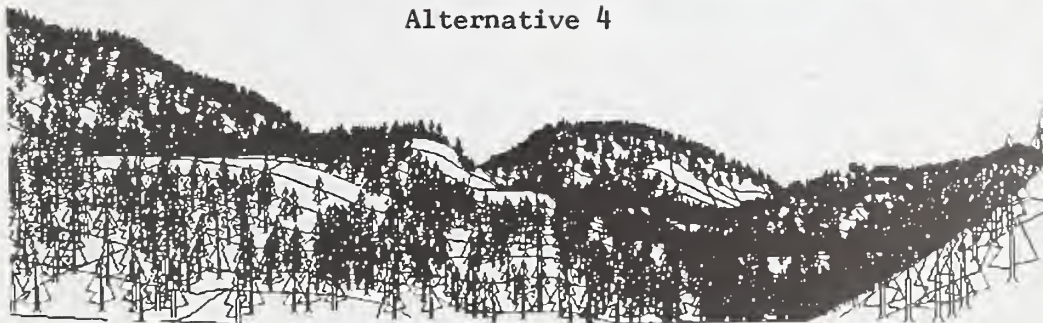
Alternative 2



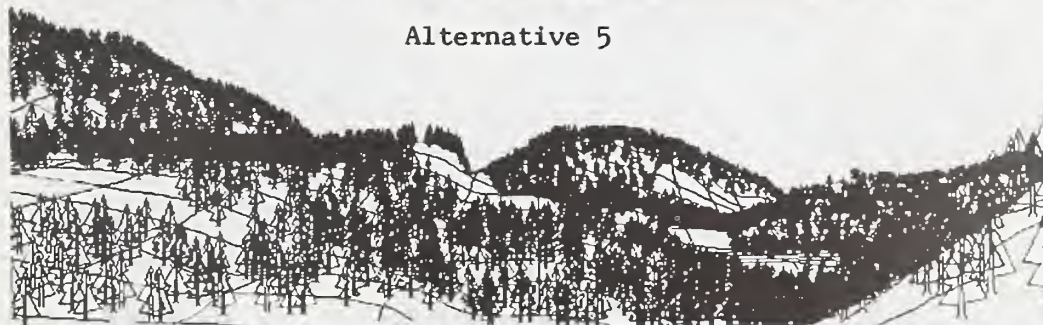
Alternative 3



Alternative 4



Alternative 5

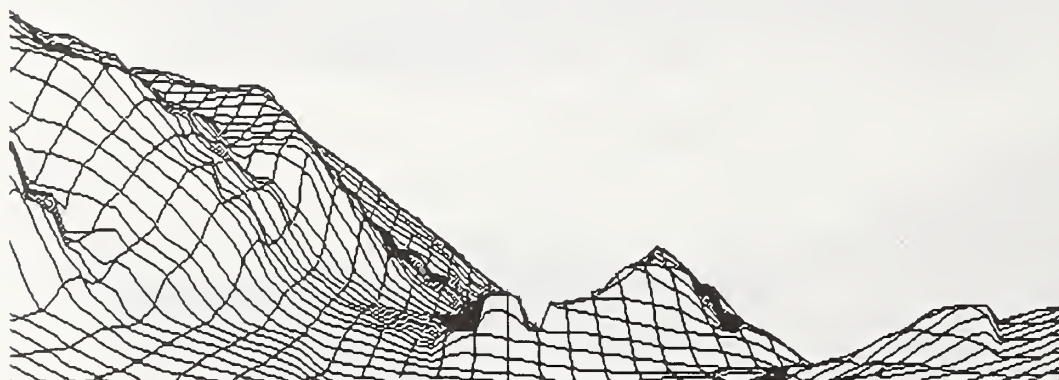


Alternative 6

13. Orchard Lake - Upstream from waterfalls at Shrimp Bay

This 3,464-acre viewshed is the only freshwater viewshed considered. During the public scoping comment period in the fall of 1991, residents and visitors alike commented on its uniqueness. There are two Forest Service cabins on the lake: one near the waterfalls outlet (Plenty Cutthroat) and the other at the head of the lake (Orchard Lake). This latter cabin is outside the Project Area. This viewshed's visual appearance is in a natural condition (Type I) with unaltered far-middleground views of mountaintops of the Shrimp Bay viewshed to the west and Klu Bay viewshed to the north and northeast.

Although timber harvest is precluded in this viewshed, any future recreational facility or management activities are proposed to meet the Partial Retention VQ0.





14. Behm Canal at West Hassler - Gedney Island to Black Island

This 1,695-acre saltwater viewshed is viewed from the entrance to Yes Bay across Behm Canal west of Hassler Island. Three islands are in this viewframe: Gedney Island on the right, Hassler Island in the middle, and Black Island on the left. Hassler Island's visually sensitive (low VAC) slopes as seen from this vantage point are primarily those above Blind Pass (between Black and Hassler Islands) and the western face of of the island.

No harvest activities are proposed on either Black or Gedney Islands in this EIS.

Currently, this viewshed meets the proposed VQO's of Retention in the foreground and Partial Retention in the middleground.

Alternative 1 - No Action

The Existing Visual Condition of this viewshed ranges from natural condition (I) to natural appearing (II). Of the 22 acres harvested in the early 1950's along the shoreline, none remain visually disturbed. Undisturbed, the Future Visual Condition would remain the same except for continuing change in tree height, color, and textures.





Alternative 2



Alternative 3



Alternative 4



Alternative 5



Alternative 6

15. Behm Canal at North Hassler - Black Island to Curlew Point

This 1,316-acre saltwater viewshed is viewed from northwest Behm Canal near Snipe Point on Bell Island. From this viewpoint, all of the northern portions of Hassler Island and Black Island can be seen between Hassler Pass and northwest Behm Canal.

Currently, this viewshed meets the proposed VQO's of Retention in the foreground and Partial Retention in the middleground.

Alternative 1 - No Action

The Existing Visual Condition of this viewshed is in a natural condition (I). Left as is, the Future Visual Condition would remain the same except for continuing change in tree height, color, and textures.





Alternative 2



Alternative 3



Alternative 4



Alternative 5



Alternative 6

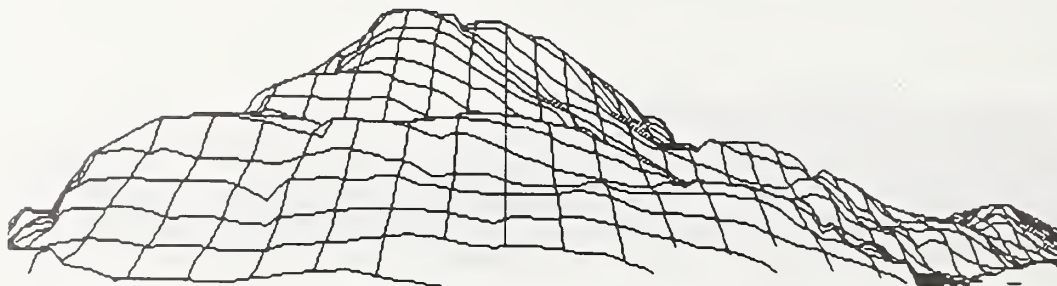
16. South Hassler Pass - Fin Point to the Hassler Island LTF

This 574-acre saltwater viewshed, the smallest in this Project Area, is viewed from the opposite shore of Hassler Pass just north of Gedney Pass near Dress Point. Hassler Pass is very similar in visual character to Inner Traitors Cove viewshed. This is due to its narrow (less than a mile wide) waterway surrounded by very steep slopes rising from water line to nearly 2,000-foot on the west and 3,000-foot on the east. The above graphic depicts a western view of Hassler Island.

Currently, this viewshed meets the proposed VQO's of Partial Retention in the foreground and Modification in the middleground.

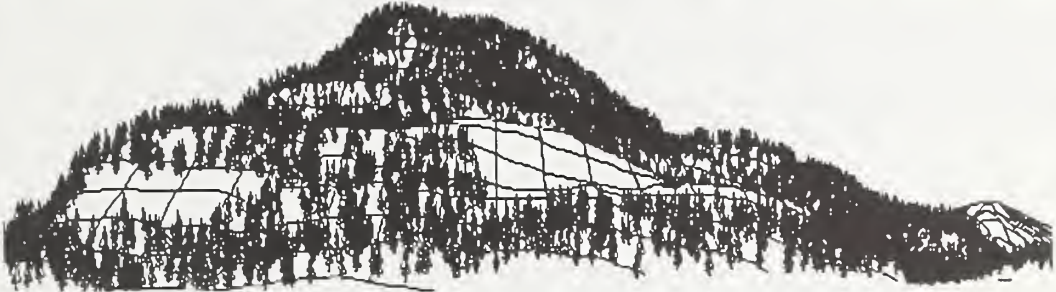
Alternative 1 - No Action

The Existing Visual Condition of this viewshed is natural appearing (II). Although 118 acres of timber harvest occurred in 1977, from this vantage point, they are not apparent due to the screening effects of vegetation on the foreground ridge line. The Future Visual Condition (FVC) will remain the same except for continuous change in tree height, color, and texture.





Alternative 2



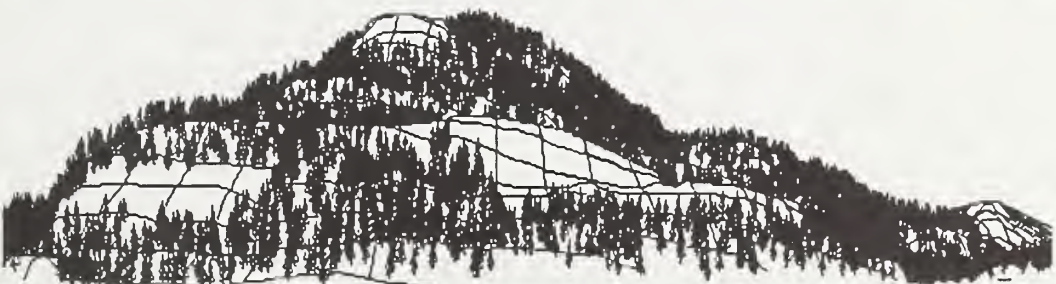
Alternative 3



Alternative 4



Alternative 5



Alternative 6

Appendix G

**LTF Reconnaissance Report
USDC National Marine Fisheries Service Report
Alaska Timber Task Force Siting Guidelines**

NORTH REVILLAGIGEDO
PROPOSED LOG TRANSFER SITE
Reconnaissance Report

March 23, 1992

Conducted by:	Jim Rhodes	Transportation Planner, SO
	John Weis	Project Engineer, KRD
	Bob Demmert	Transportation Planner, SO

LOG TRANSFER SITES INVESTIGATED

Following are preliminary reconnaissance reports concerning Log Transfer sites investigated in the project area. Sites that were eliminated did not meet numerous siting guidelines. The preferred sites were investigated and are proposed for use in the various alternatives considered in this document.

Relocation of existing sites was generally not considered as the existing sites meet most siting guidelines. Additionally, relocation of the sites would cause impacts in new areas unnecessarily. However, several existing sites considered do not meet numerous current siting guidelines. Where possible, the areas served by such sites were considered for connection by road to an acceptable existing site or to a new site that will meet guidelines.

NORTH REVILLA

LTF RECONNAISSANCE REPORT

March 23, 1992

The general area lies on northwest Revillagigedo Island (see Map 1). The various LTF sites examined are located on Hassler Island in Hassler Pass, Shrimp Bay, Neets Bay, and Traitors Cove.

SUMMARY:

It is recommended that low-angle slide systems be used at North Neets and NW Traitors Cove. All other sites will need to be developed as A-frame systems with guide rails and bulkhead due to the terrain and bathymetry. Following are general discussions concerning the rationale for the above-named recommendations.

Only Shrimp Bay, Fire Cove, and Margaret Bay LTFs serve significant timber volumes which range 25-to-80 MMBF for the currently planned second entry. The third entry will yield less volume than the second.

North Revillagigedo contains very steep mountains and fjords. Because of such steep terrain and bathymetry, very few beach areas are suitable for low-angle slides. Accordingly, many A-frame type LTFs are proposed for very small timber yield areas.

OTHER CRITERIA:

Where possible, existing sites were used rather than new sites to reduce overall effects. In several instances, existing sites did not meet current siting guide lines, nor could they be modified to do so. In such cases, new sites on road connections to other sites, if feasible, are recommended.

Detailed information concerning each site that was investigated is contained in subsequent discussions.

HASSLER ISLAND Site #1

Location: SE 1/4, SW 1/4, Sec. 15, T. 69 S., R. 90 E. KTN D-5
55° 52' 57" N, 131° 36' 07" W.

Proposed Volume: 20 MMBF

Facility Type: Proposed low-angle slide.

Upland Area: Ample, moderate ground for developing an operations area.

Rafting Area: Ample deep water rafting area. Water depth area is relatively protected from extreme marine and weather actions.

Barge Off-Loading: Initial landings will need to be made near a rock source for construction. A temporary skid trail from beach to the rock source will be needed until a road linking the LTF and rock source is built. A brow log with a small embankment will be needed at both the temporary and final barge landings. The temporary barge landing will be located when a suitable rock source is found.

Camp Facilities: It is expected that Hassler Island will be served by use of a floating camp. Numerous protected float camp sites are available within boating distance from the LTF. Such areas are Shrimp Bay, Klu Bay, Dress Point, and areas adjacent to the LTF.

Access: Uplands are moderate and will accommodate moderate grades in and out of the LTF area.

Marine Conditions: The beach is rocky and drops quickly, then flattens out for 200 ft, and then drops to extreme depths. This site is ideal for a 10 percent slide system. The lower end of the slide would be at the point where the terrain breaks to extreme depths.

Fisheries: Nearest cataloged fish stream is 3/4 mile southeast of the site. Another stream lies 3/8 mile northwest of the site. This stream is not a cataloged fish stream.

Other

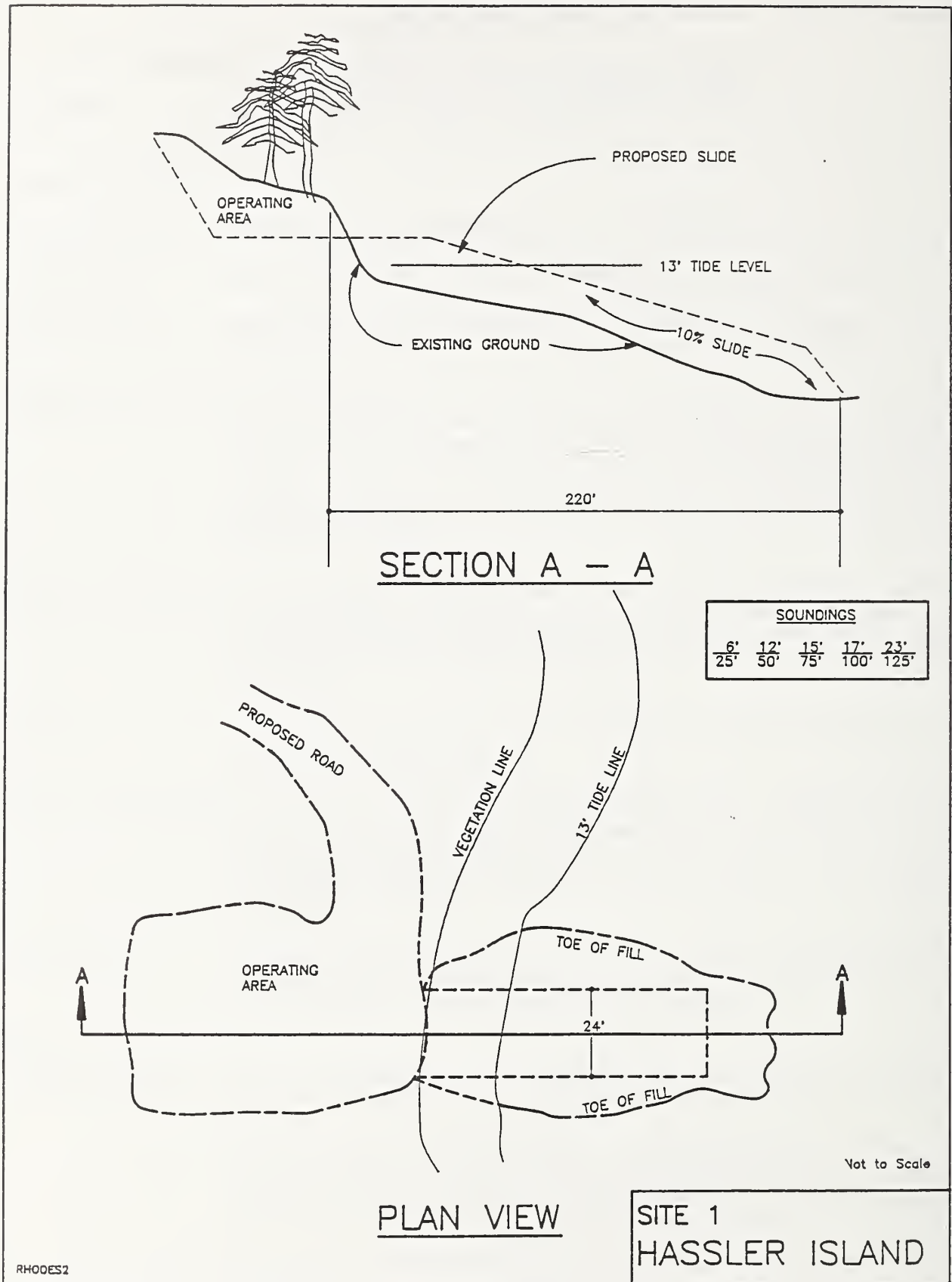
Environmental: Site is relatively well-protected from heavy wind and wave action. Hassler Pass is 500 to 600 feet deep.

The site is visual from about 1/2 of Hassler Pass. The LTF is not visual from Behm Canal. However, rafting and float camp facilities would be visible from Behm Canal and Gedney Pass. The LTF is not visual from Gedney Pass.

Tideland Plane: There are no current tideland plans for this area.

Recommendations: Conduct a marine investigation.

Develop Site #1 as a low-angle slide to accommodate very small infrequent harvest operations.



HASSLER ISLAND Site #2

Location: NE 1/4, SE 1/4, Sec. 22, T. 69 S., R. 90 E. KTN D-5.
55° 52' 17" N, 131° 35' 21" W.

Proposed Volume: 20 MMBF

Facility Type: Existing steep slide, last used in 1977. Requires conversion to an A-frame and bulkhead with guide rails. This site will not accommodate a low-angle slide system.

Upland Area: Ample moderately sloped ground for operating area. Existing site will require major excavation to accommodate an A-frame system with bulkhead.

Rafting Area: Ample area for rafting . Hassler Pass is very deep and well-protected from heavy seas and wind actions.

Barge Off-Load: Existing site is adequate for barge landings.

Camp Facilities: It is expected that Hassler Island operations will be served by use of a floating camp. Numerous float camp sites are available within boating distance from the LTF. Such areas as Shrimp Bay, Dress Point, and adjacent to the LTF.

Access: The existing road will need to be relocated to accommodate an A-frame with bulkhead. The existing road is 15 to 18 percent favorable. The existing road would need to be undercut to accommodate an A-frame system, thus the road will need to be relocated for about 500 feet. Grades will be between 15 and 18 percent favorable.

Marine Conditions: The site has a very steep, rocky beach suitable for development of an A-frame system. The bathymetry is steep allowing bark deposit to move to extreme depths.

Fisheries: The nearest cataloged fish stream is #101-80-13. This stream is 1/4 mile NE of the site.

Other

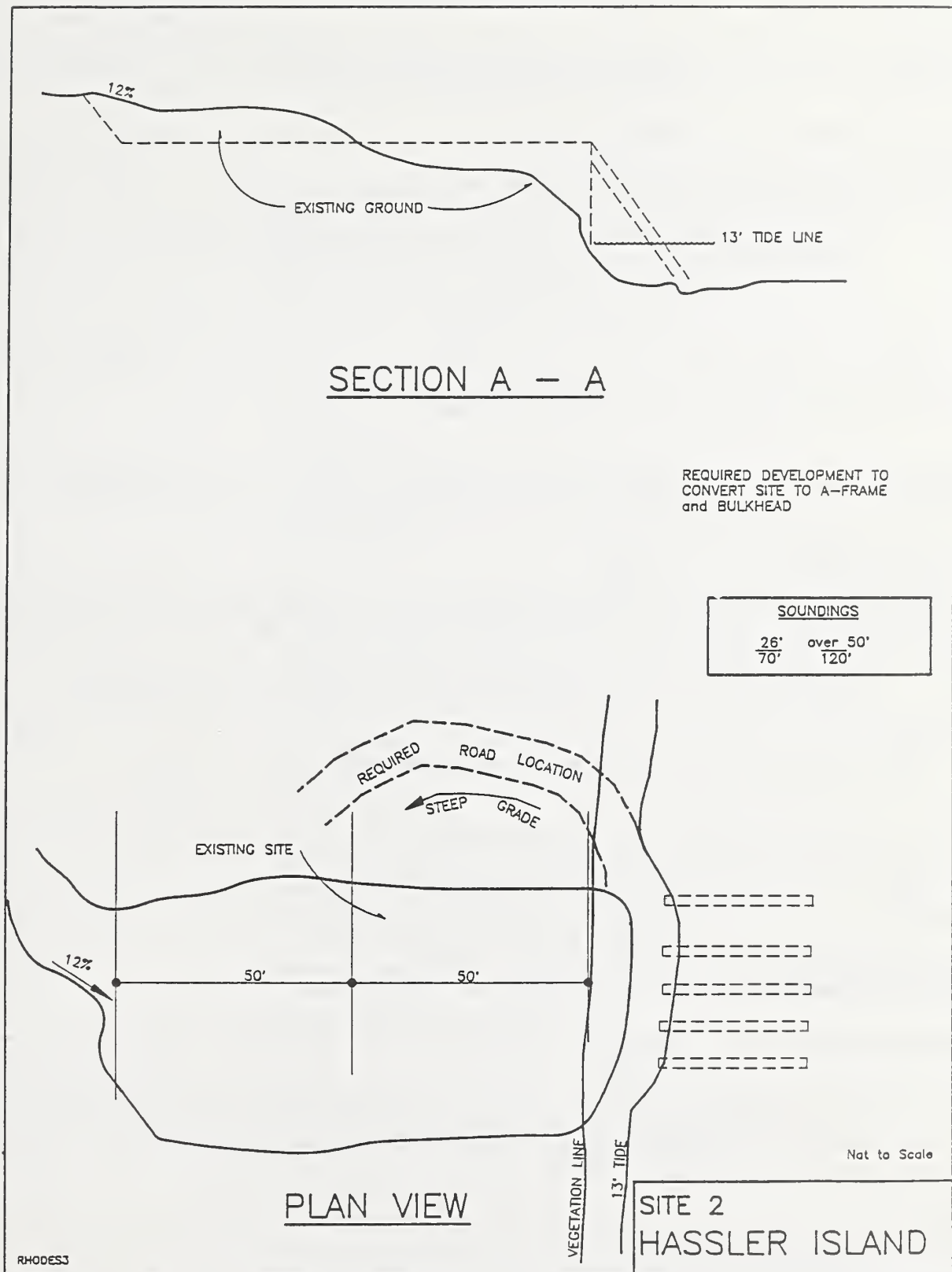
Environmental: This site is protected from adverse marine and weather action. The LTF is highly visible from a small portion of Hassler Pass. An eagle tree is immediately south of the existing LTF site. Reconstruction will require reconnaissance activities to determine the proximity of the eagle tree.

Tideland Plans: This area is not covered in a detailed state tideland plan.

Recommendations:

Conduct marine investigation to determine if site has fully recovered or highly impacted.

This existing site is not recommended as it cannot be converted to a low-angle slide. This island will require small operations to clean-up and maintain the Forest. Hassler Island is small (7 or 8 square miles, thus, not supporting a large operation. Re-entries will be infrequent; small equipment and small operations will be used to harvest the area.



DRESS POINT Site #3

Location: SW 1/4 NW 1/4 Sec. 25, T. 69 S., R. 90 E. KTN D-5
55° 51' 26" N. 131° 33' 21" W.

Proposed Volume: Not being used.

Facility Type: Existing steep slide. Used in 1976.

This facility is not being considered for reuse in this plan: No timber volume tributary to this site is being scheduled.

* * * * *

KLU BAY Site #4

Location: N 1/2 SW 1/4 Sec. 34, T. 69 S., R. 91 E. KTN D-5
55° 50' 30" N. 131° 27' 11" W.

Proposed Volume: 16 MMBF

Facility Type: Existing A-frame lift off with bulkhead and guide rails.

This facility may require minor reconstruction including bulkhead reconstruction and installation of an A-frame life-off machine.

* * * * *

Shrimp Bay Site #5

Location: SE 1/4 NW 1/4 Sec. 5, T. 70 S., R. 91 E. KTN D-5
55° 49' 57" N. 131° 29' 57" W.

Proposed Volume: 14-33 MMBF

Facility Type: Existing A-frame lift-off system with bulkhead and guide rails.

This facility may require minor reconstruction including bulkhead and guide rail replacement and installation of an A-frame lift-off machine.

CHIN POINT Site #6

Location: SE 1/4 NW 1/4 Sec. 18, T. 70 S., R. 90 E. KTN D-6
 55° 47' 59" N. 131° 40' 53 ".

Proposed Volume: 18 MMBF

Facility Type: Existing float-off system. Logs are dragged onto the beach and floated off. A ramp will need to be developed.

Upland Area: The uplands are moderately sloped allowing for developable upland operating area.

Rafting Area: Ample water depth for rafting. This area is highly exposed to wind and wave action. Log boom may need to be built in such a way to make it serve as a floating breakwater.

Barge Off-Load: Initial landings will need to be made at high tide on the existing road. Subsequent landings can be made at the LTF site.

Camp Facilities: This area can be served by both upland or floating camps. It is expected that this area will be served by float camps located in more protected areas such as Fire Cove, Southwest Neets Bay, or an area 2 to 3 miles east of NW Neets site Site #6.

Access: An abandoned existing road accesses this site. Grades are moderate. The existing road will require major reconstruction.

Marine Conditions: The beach slopes at 10 percent. The LTF structure would lie on the edge of the gentle sloping gravel segment of the beach. The end of the LTF ramp would be at the break in slope of the beach.

Fisheries: A cataloged fish stream #101-90-02 is close to the LTF site. Another cataloged fish stream #101-90-03 lies 1/4 mile east of the site.

Other

Environmental: Eagle trees lie about 1/8 mile west and 1/2 mile east of the site.

This site is highly exposed to prevailing storms and wave action.

Visually, this site can be seen from most of Neets Bay and from Behm Canal. This site is low in profile, including the uplands, thus, minimizing visual impacts.

Tideland Plans: There are no current tideland plans for this area.

Recommendations: Conduct a marine investigation to determine suitability
for this facility.

 Determine proximity of fish stream in accordance with
siting guidelines.

 Determine proximity of eagle trees.

 Develop this site as a low-angle slide to accommodate
small operations.

 Investigate possibility of using LTF sites #7, #8, or #9
in place of this site as only one LTF is needed.

CHIN POINT Site #7

Location: NW 1/4 SE 1/4 Sec 18 T.70 S. R.90 E KTN D-6
55° 48' 0" N. 131° 40' 19" W.

Proposed Volume: 18 MMBF

Facility Type: Low-angle Slide

Upland Area: Uplands are moderately sloped allowing for developable upland area.

Rafting Area: Ample water depth for rafting. This area is highly exposed to wind and wave action. Log boom may need to be build in such a way to make it serve as a floating breakwater.

Barge Off-Load: Initial landings can be made at existing Site #8. Subsequent landings can be made at Site #7.

Camp Facilities: This area can be served by both upland or floating camps. It is served by float camps located in more protected areas such as Fire Cove, Southwest Neets bay, or an area two-to-three miles east of NW Neets, Site #6.

Access: Uplands are moderated allowing for easily developed access.

Marine Conditions: The beach slopes at 10-to-12 percent. The LTF structure would be close to the point where the bottom becomes steep.

Fisheries: Cataloged fish stream # 101-90-03 lies approximately 550 west of the site.

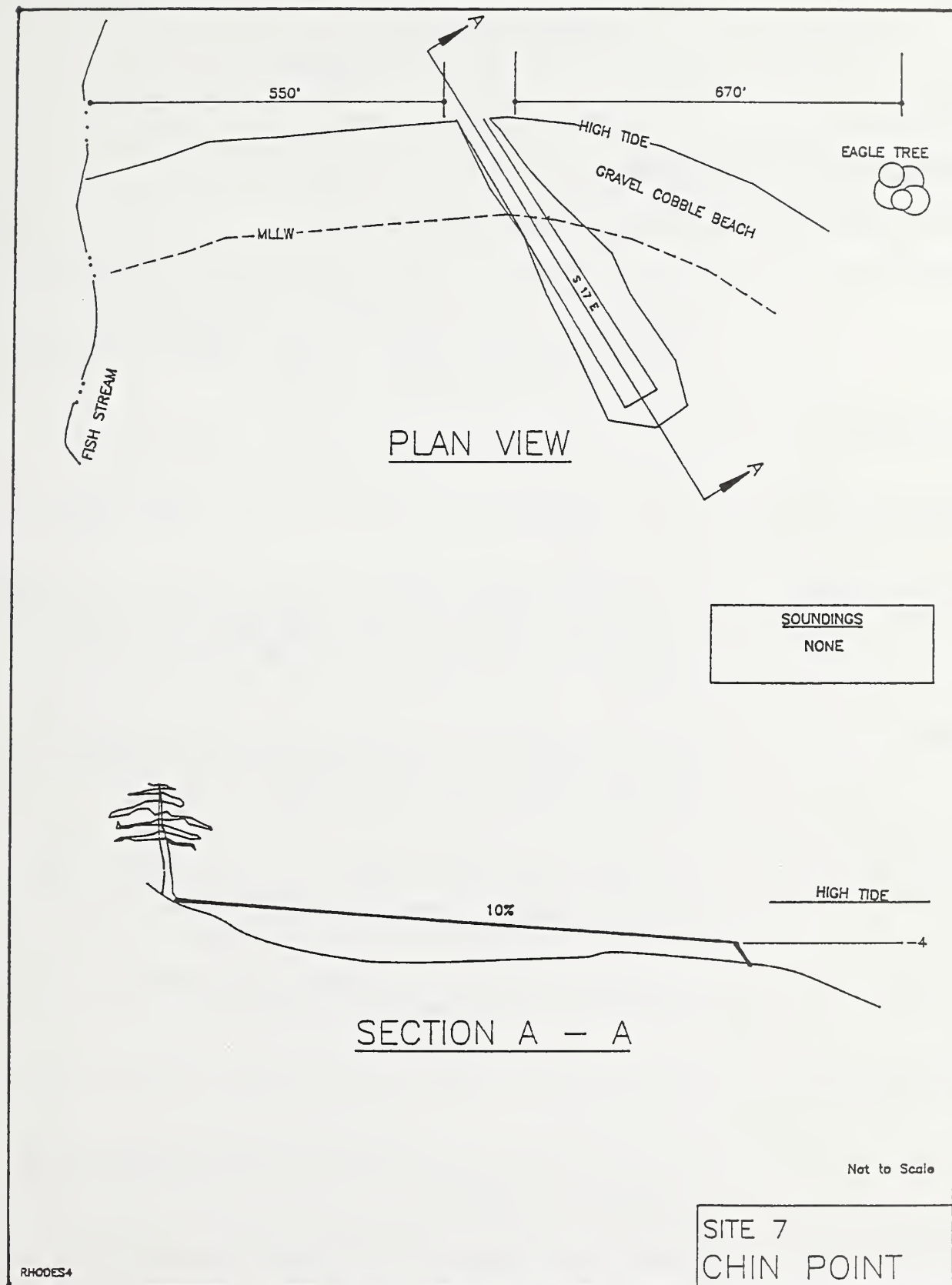
Other

Environmental: An eagle tree is located 570' east of the site. Visual, the site will have a very low profile as the beach will require a minimal structure and the uplands are relatively flat. The site operating area is within an existing clear cut.

Tideland Plans: There are no current tideland plans for this area.

Recommendations: Conduct a marine investigation to determine site suitability. Develop this site as a low-angle slide to accommodate small operations.

Locate the structure alignment as close to S. 17° E as possible to situate the lower end of the structure further away from the fish stream as possible. This will also place the lower end of the structure closer to the point where the bathymetry changes to steep slopes.



RHODES4

NORTH NEETS Site #8

Location: NW 1/4 NE 1/4 Sec. 20, T. 70 S., R. 90 E. KTN D-5
55° 47' 32" N. 131° 38' 48" W.

Proposed Volume: 18 MMBF

Facility Type: Existing Steep Slide.

Upland Area: The upland area is a small level area approximately 50' X 70', backed by a large rock cut. This site cannot be converted to a low-angle slide. Conversion to an A-frame system would require a very large fill to reach appropriate water depths. Otherwise, the site could only be used during high tide levels.

Rafting Area: Ample rafting area and water depth. This area is relatively exposed to high winds and water action.

Barge Off-Load: Initial Landing can be made during high tide levels at the existing LTF.

Camp Facilities: It is expected that Hassler Island will be served by use of a floating camp. Numerous protected float camp areas are available within boating distance from the LTF. Such areas are Shrimp Bay, Klu Bay, Dress Point, and others.

Access: This site contains an existing road that will require major reconstruction. If possible, this road system will be connected to NW Neets Bay site #6, thus, eliminating the need for this site.

Marine Conditions: The beach is rocky and steep; then it flattens out for 125 feet, after which it drops to extreme depths. This site will require a very large fill, bulkhead, and footprint to reach adequate water depths.

Fisheries: Cataloged fish streams #101-90-04 and #101-90-05 lie west and east from the LTF respectively.

Other
Environmental: The nearest eagle tree is approximately 1/4 mile west of the LTF site.

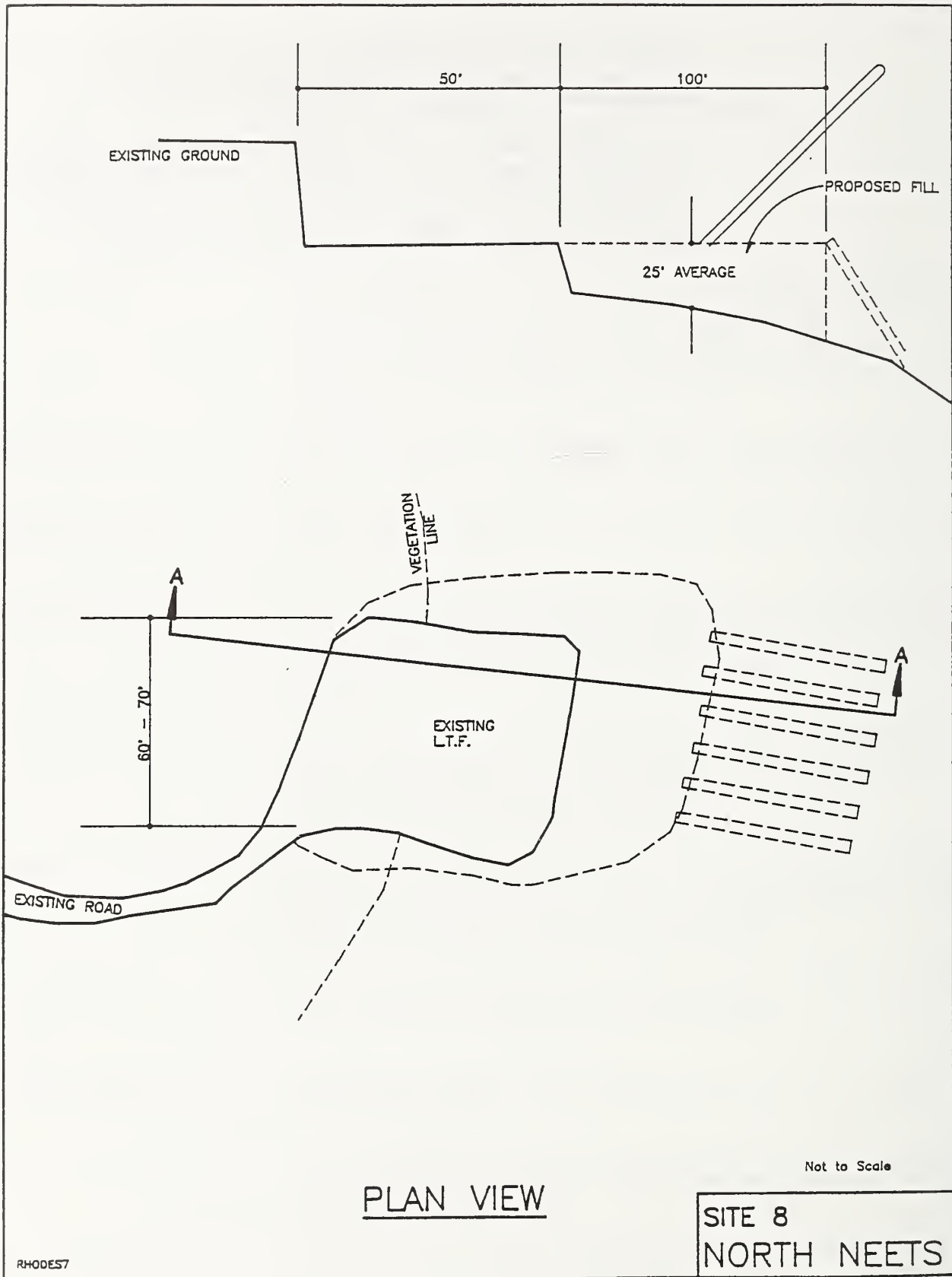
Site #8 would be visible from the western 1/4 of Neets Bay and from Behm Canal. This site is invisible to the remainder of Neets Bay.

Tideland Plans: There are no current tideland plans for this area.

Recommendations: Conduct a marine investigation.

Develop a site as an A-frame lift-off system with bulkhead and guide rails. This site will not accommodate a slide-type system due to the terrain.

Investigate possibility of using sites #6, #7, or #9 as only one of these sites is needed to serve the tributary timber. It would be preferable to use site #6 as this tributary area is small. The slide system at site #6 would accommodate small operations and equipment.



NORTH NEETS Site #9

Location: NW 1/4 NE 1/4 Sec. 20, T. 70. S., R. 90 E. KTN D-5
 53° 47' 29" N. 131° 38' 36" W.

Proposed Volume: 18 MMBF

Facility Type: A-frame with bulkhead.

Upland Area: The uplands are steep for 30 to 60 feet, then level off into rolling terrain. A large excavation will be necessary.

Rafting Area: Ample rafting area and water depth. This area is relatively exposed to high winds and wave action.

Barge Off-Load: Initial landings can be made at Site #8. Then a barge landing can be developed at the Site #9 site.

Camp Facilities: Same as Site #8: It is expected that Hassler Island will be served by use of a floating camp. Numerous protected float camp areas are available within boating distance from the LTF. Such areas are Shrimp Bay, Klu Bay, Dress Point, and others.

Access: About 500 feet of road will need to be built from Site #8 to Site #9.

Marine Conditions: Same as Site #8: The beach is rocky and steep; then it flattens out for 125 feet, after which it drops to extreme depths. This site will require a very large fill, bulkhead, and footprint to reach adequate water depths. However, the footprint in the tidal area would be slightly smaller.

Fisheries: Cataloged fish stream #101-90-05 lies 1/2 mile east of Site #9 and #101-90-04 lies 3/4 mile west.

Other

Environmental: The nearest eagle tree is about 3/8 mile west of Site #9.

Site #9 is exposed to heavy wind and wave action.

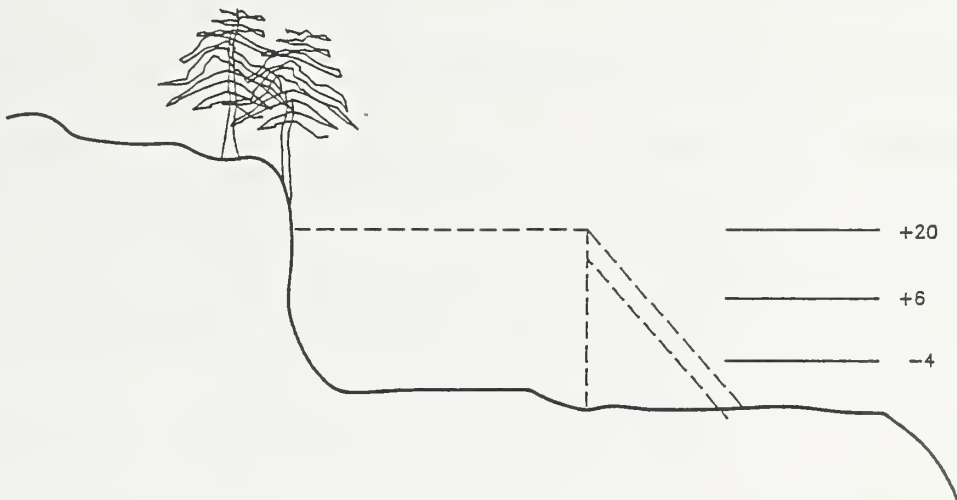
Visually, this site is visible from the western 1/4 of Neets Bay and from Behm Canal.

Tideland Plans: There are no current tideland plans for this area.

Recommendations: Conduct a marine investigation.

Develop a site as an A-frame lift-off system with bulkhead and guide rails. This site will not accommodate a slide type system due to terrain.

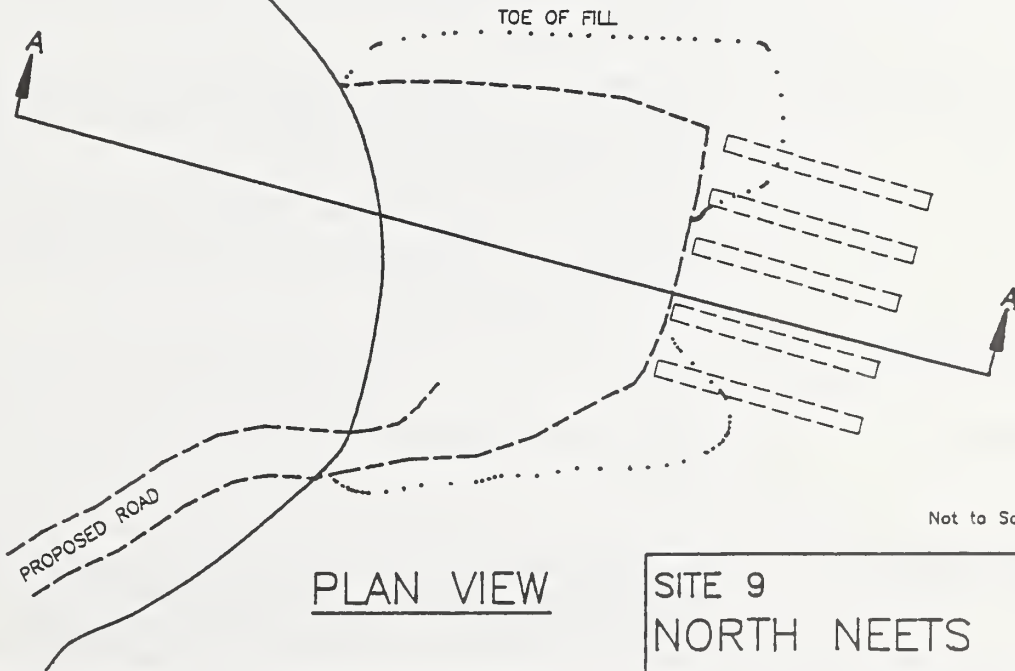
Investigate possibility of using Sites #6, #7, or #8 as only one of these sites is needed to serve the tributary timber. It would be preferable to use Site #6 as the tributary area is small. The slide system at Site #6 would accommodate small operations and equipment.



SECTION A - A

SOUNDINGS			
10'	11'	27'	50'
50'	70'	150'	200'

⊕ +6 TIDE



Not to Scale

PLAN VIEW

SITE 9
NORTH NEETS

RHODES

CLAM ISLAND Site #10

Location: SE 1/4 NE 1/4 Sec. 21, T. 70 S., R. 90 E. KTN D-5
55° 47' 07" N. 131° 36' 55" W.

Proposed Volume: 7 MMBF

Facility Type: Existing steep slide. Can be converted to a low-angle slide.

Upland Area: Area is confined in a narrow draw. Considerable excavation will be required to expand the operating area for truck off-loading.

Rafting Area: Ample rafting area with deep water. Area is somewhat exposed to wind and wave action.

Barge Off-Load: Barge off-loading can be developed adjacent to the LTF. A small brow log and embankment will be needed for the barge landing.

Camp Facilities: Same as for Sites #6, #7, #8., and #9.

No upland area is available for a land camp. Additionally, there are no adequate water sources near this site.

Access: The existing road enters the site at an 18 percent grade. The access way is a narrow draw with a natural grade of 18 percent. This route will require major reconstruction.

Marine Conditions: The beach is gentle sloping with large rock out-crops. Approximately 200 feet seaward the bottom drops to depths greater than 50 feet.

Modification of the steep slide will expand the current footprint to approximately twice its current size. The current fill will be incorporated into the new slide and barge off-load ramp.

Site #10 is relatively protected at the LTF site.

Fisheries: Nearest cataloged fish stream is 1/2 mile west of the site.

Other
Environmental: An eagle tree lies 1/4 mile east of Site #10. The site will not be of use at +2 ft. and lower tide levels because the beach is too steep to build on.

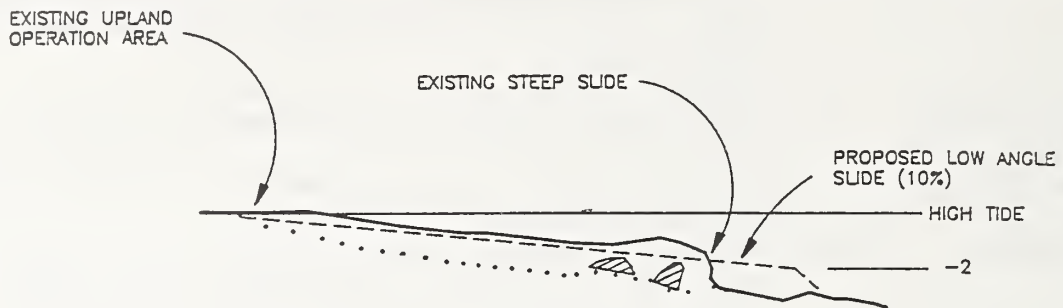
The site is visible from a narrow corridor in Neets Bay. The site lies in a narrow bight confining the visual angle.

Tideland Plans: There are no current tideland plans in this area.

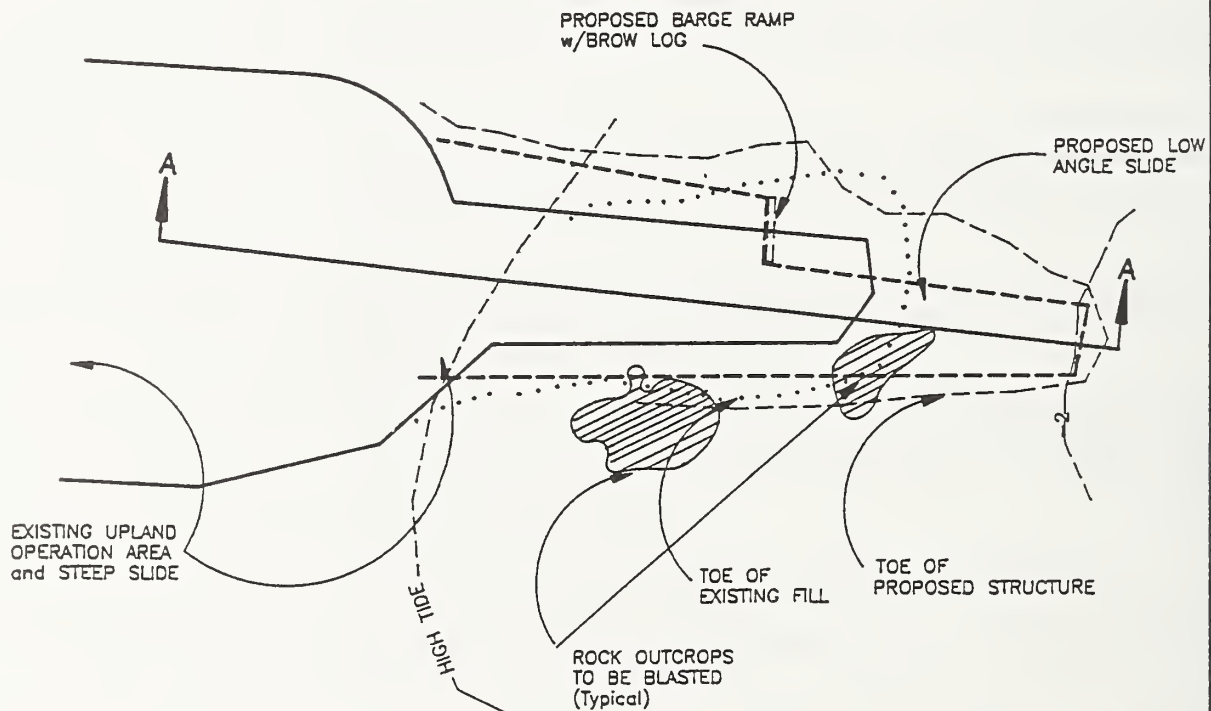
Recommendations: Conduct a marine investigation to assess the current marine conditions.

Construct a low-angle slide as this site serves a very small isolated area that will require very few re-entry operations over the rotational harvest period.

This site will not facilitate use at +2 feet and lower tidal levels due to the nature of the beach.



SECTION A - A



Not to Scale

PLAN VIEW

SITE 10
CLAM ISLAND

RHODES6

SAME COVE Site #11

Location: NW 1/4 SE 1/4 Sec. 14, T. 70 S., R. 90 E. KTN D-5
55° 47' 52" N. 131° 34' 19" W.

Proposed Volume: 10 MMBF

Facility Type: Existing steep slide will require converting into an A-frame with bulkhead and guide rails. This site cannot be converted to a low-angle slide.

Upland Area: The site is situated in a small confined bowl-shaped area surrounded by high ridges. Additional area will need to be excavated to convert the site to an A-frame and bulkhead system.

Rafting Area: Ample rafting area with deep water. LTF site is protected from weather; However, the rafting area is somewhat more exposed.

Barge Off-Load: Initial off-loading can be done at the existing LTF. Subsequent landings can be accomplished adjacent to the LTF.

Camp Facilities: Same as for Sites #6, #7, #8, #9, and #10: No upland area is available for a land camp. Additionally, there are no adequate water sources near this site.

Access: The existing road will require major reconstruction. Some modification of the alignment may be necessary to convert the existing LTF to accommodate an A-frame system.

Marine Conditions: The site lies at the head of a small cove with depths of 50 to 60 feet. A large rock lies in the center of the cove which will confine towing operations.

The LTF site is protected from weather.

Fisheries: No cataloged fish streams are near the site.

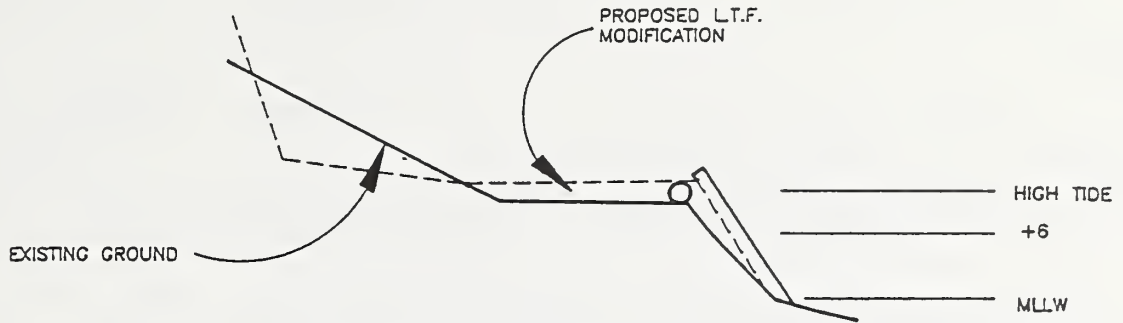
Other
Environmental: No eagle trees are near the site.

The site is visually obscured from Neets Bay due to its location in the small cove. The log rafts would be visible from the west 1/2 of Neets Bay as the log rafts would be located outside of the small cove.

Tideland Plans: There are no current tideland plans for this area.

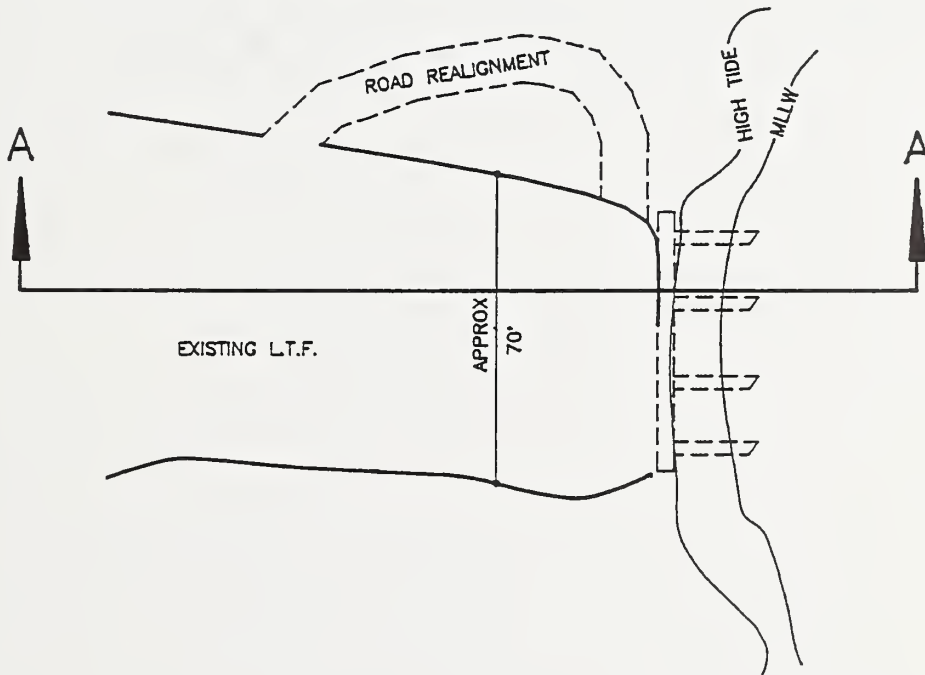
Recommendations: Conduct marine investigation.

Construct an A-frame lift-off system with bulkhead and guide rails.



SECTION A - A

SOUNDINGS		
26'	37'	42'
25'	50'	75'



Not to Scale

PLAN VIEW

SITE 11
SAME COVE

RHODES

EASY Sites #12, #13, & 14

Location:

Site #12: SE 1/4 NW 1/4 Sec. 13, T. 70 S., R. 90 E. KTN D-5
55° 48' 05" N. 131° 33' 07" W.

Site #13: NW 1/4 NW 1/4 Sec. 13, T. 70 S., R. 90 E. KTN D-5
55° 48' 13" N. 131° 33' 12" W.

Site #14: NW 1/4 NW 1/4 Sec. 13, T. 70 S., R. 90 E. KTN D-5
55° 48' 16" N. 131° 33' 13" W.

These sites were investigated. However, the beach characteristics did not lend to development of either a low-angle slide or an A-frame lift-off system with bulkhead. The beach characteristics would require a very large footprints and embankments for an A-frame system. Low-angle slides could not be constructed at these sites because the beach does not provide sufficient runout for such structures. Also, these sites would require additional new road construction to reach the harvest areas.

EAST NEETS Site #15

Location: SE SW4 NW 1/4 Sec. 17, T. 70 S., R. 91 E. KTN D-5
55° 47' 34" N. 131° 29' 48" W.

Proposed Volume: 20 MMBF

Facility Type: Site #15 is situated within the Neets Bay fish hatchery operation. The existing LTF serves as access to several fish holding pens. This is an unauthorized situation as Site #15 is not within the special use permit area.

The site is adjacent to high-value estuarine habitat. Site #15 is relatively shallow.

Barge Off-Load: The fish holding pens are in the area that serve as a log booming and rafting operations originally.

Access: Three residential units, with associated children play areas, are located directly on the edge of the access road, leaving minimal clearance for trucks. This access route is the route that could serve as an eventual power transmission corridor access facility.

It is recommended that this site not be reactivated due to the proximity of high-value estuarine habitat, expected interference between fish holding pens, and rating operations and truck traffic through hatchery residential area.

APPENDIX G

EAST NEETS Site #15a

Location: NE 1/4 NE 1/4 Sec. 13 T. 70 S. R. 90 E. KTN D-5
55° 48' 19"N. 131° 32' 06" W.

Proposed Volume: 20 MMBF

Facility Type: Site #15a would accomodate an A-frame system. The site has a very steep sloped beach.

Upland Area:

Rafting Area:

Barge Off-Load

Camp Facilities

Access: Access would require 2.5 miles of additional road that would traverse several steep slopes to reach tidewater. It is feasible to connect East Neets Bay to the Shrimp Bay LTF by developing three miles of additional road. This road would need to be located between the 200 to 500 feet elevation to avoid numerous steep areas that a road to Site #15a would need to traverse.

The route to Shrimp Bay could also serve as a power transmission facility corridor. This would facilitate both timber resource management and power transmission facility construction and maintenance.

Marine Conditions:

Fisheries:

Other
Environmental:

Tideland Plans:

Recommendations: It is recommended that Site #15a is eliminated from further study to consolidate LTF sites, reduce additional difficult road development, and accommodate possible power transmission facilities.

FIRE COVE Site #16

Location: NW 1/4 NW 1/4 Sec. 25, T. 70 S., R 90 E. KTN D-5
 55° 46' 29" N. 131° 33' 19" W.

Proposed Volume: 70 MMBF

Facility Type: Existing A-frame lift-off system with bulkhead and guide rails.

The existing bulkhead and guide rails will require replacement. The original deep water rafting area will be used for this entry. An A-frame lift will need to be installed.

* * * * *

SOUTH WEST NEETS BAY Site #17

Location: SW 1/4 SW 1/4 Sec. 31, T. 70 S., R. 89 E. KTN D-6
 55° 45' 09" N. 131° 41' 24" W.

Proposed Volume:

Facility Type: Existing A-frame lift-off with bulkhead.

The existing facility will require minor repairs and re-installation of an A-frame.

The original deep water rafting site will again be used.

CHIN POINT Site #18

Location: SW 1/4 SE 1/4 Sec. 18, T. 71 S., R. 90 E. KTN C-6
55° 42' 22" N. 131° 40' 23" W.

Proposed Volume: 20 MMBF

Facility Type: Proposed low-angle slide. This facility serves a very small isolated harvest area.

Upland Area: The uplands are of moderate terrain which will allow development of an operating area.

Rafting Area: Rafting area can be developed immediately off shore from the site. This site depth of 120 feet and more.

Barge Off-Load: An initial landing site will need to be identified when an adequate rock source is found. After a road from rock source to LTF is developed, subsequent barge landings can be made adjacent to the LTF.

Camp Facilities: It is anticipated that this site will be served by a float camp in Margaret Bay. However, depending upon the operation logging this area, a float camp site may be needed near the site. A small float camp could be placed in a small bay north of Site #18.

Access: Access routes would be of moderate grades as the terrain adjacent to Site #18 is moderate. The State of Alaska has selected lands in this area. The selection has been approved by the Regional Forester. However, title has not been transferred to the State. The Forest Service will need to retain an easement for the LTF and roads in the selection. See attached map of the state selection area.

Marine Conditions: The beach contains large cobbles with rock outcrops. The beach drops at 11 percent for 125 feet. The bottom is of gentle slope for another 150 feet, then drops to very deep water. The lower end of the slide would be close to the point of where the bottom drops to extreme depths.

Fisheries: The nearest fish streams are 3/8 mile north and 1 mile west of the site. These are #101-90-02 and #101-90-19 respectively.

Other
Environmental: An eagle tree is located about 1/8 mile east of the site.

The site would be visible from Margaret Bay, the west 1/4 of Traitors Cove, and obscured from Behm Canal. This site is located outside of a small bay to the north. Rafting and transferring of logs would be as far from the bay as practical.

Tideland Plans: There are no current tideland plans for this area.

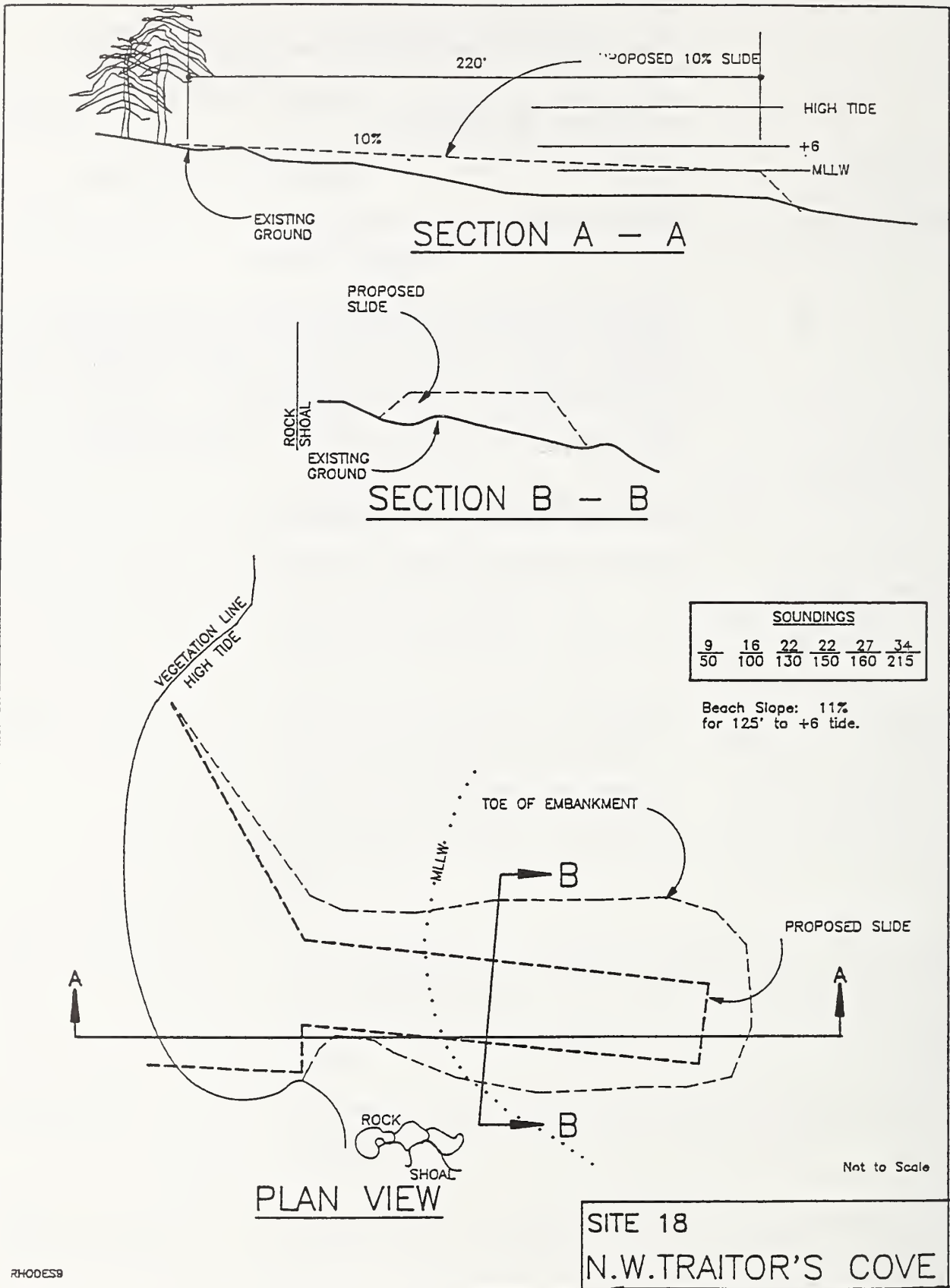
Recommendations: Conduct a marine investigation.

Develop this site as low-angle slide.

Sites #18 and #19 are tributary to this harvest area. Recommend using Site #18 as Site #19 would not support a low-angle slide and would require a large embankment and bulkhead footprint for an A-frame system. The slide system at Site #18 would be preferable as this is a small isolated area requiring small operations and equipment.

Verify the location of the eagle tree.

Initiate easement retention process.



NORTHWEST TRAITORS COVE Site #19

Location: SW 1/4 SE 1/4 Sec. 18, T. 71 S., R. 90 E. KTN C-6
 55° 42' 32" N. 131° 40' 19" W.

Proposed Volume: 20 MMBF

Facility Type: The terrain does not lend to either a low-angle slide or A-frame with bulkhead. The beach is too steep for a slide. However, a very large embankment would be required for an A-frame.

Site #19 is within a small bay and has an eagle tree.

Site #19 is tributary to the same area as site #18. Only one site is needed.

Recommendations: It is recommended that Site #19 not be considered further. The terrain, its location in a small bay, and the proximity to the eagle tree are not desirable features. Also, an A-frame system would not meet the needs for small operations.

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NORTHWEST TRAITORS COVE #20 AND #21

Location Site #20: SW 1/4 SW 1/4 Sec. 8, T. 71 S., R. 90 E. KTN C-5. 55° 43' 21" N. 131° 39' 38" W.

Site #21: NW 1/4 SW 1/4 Sec. 8, T. 71 S., R. 90 E. KTN C-5. 55° 43' 30" N. 131° 39' 31" W

Facility Type: These sites were field investigated and found unsuitable for development as slides or A-frame with bulkhead systems.

Sites #20 and #21 were expected to serve the area tributary to Sites #20, #21, #22, and #23. From a photo map and cursory field reconnaissance, it appears that Sites #20 and #21 cannot be accessed from the area being harvested due to difficult terrain.

Recommendations: It is recommended that these sites not be considered further.

NORTH TRAITORS COVE Site #22

Location: SE 1/4 NE 1/4 Sec. 8, T. 71 S., R. 90 E. KTN C-5
55° 43' 44" N. 131° 38' 29" W.

Proposed Volume: 10 MMBF

Facility Type: A-frame with bulkhead and guide rails. The terrain and bathymetry do not lend to development of a slide.

Upland Area: The uplands are 35-to-40 percent slopes. Development of an operating area will require a large excavation.

Rafting Area: Rafting may require several stages due to the excessive water currents. This may include use of a log boom at the LTF site, then move each day's cut to a rafting site 3/8 mile southwest or 1/2 mile across Traitors Cove. Currents in the area are very heavy due to the outlet of the salt chuck 3/4 mile west of the site.

Barge Off-Load: Initial landings would be made at the site. Subsequent landings would be made adjacent to the LTF site.

Camp Facilities: It is anticipated this area will be served by a float camp at Margaret Bay. This would require a two mile boat commute.

No land camp areas are available at this site.

Access: The access route into Site #22 will be steep (18 percent and up and will have tight curves). Road cuts and LTF excavation will be large. The terrain the tributary area is very steep limiting opportunities to access the shore line.

Marine Conditions: The beach is very steep and Traitors Cove is over 100 feet deep in this area. Tidal currents are very strong due to the outlet of the salt chuck 1/2 mile east of the site. This will insure flushing.

An eagle tree is located 1/4 mile southwest of the site.

Fisheries: Nearest cataloged fish streams are 1/2 mile east and west of the site.

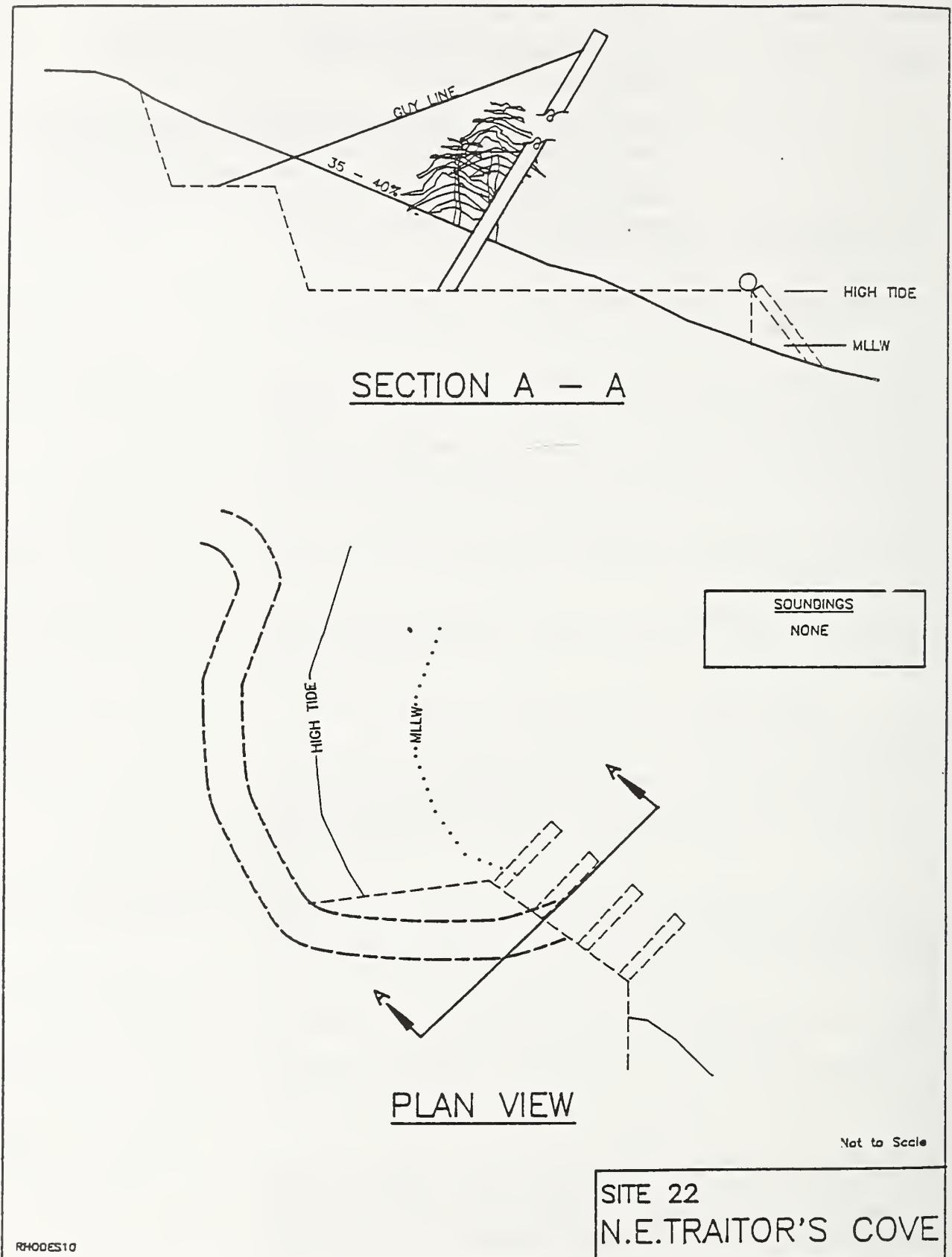
Other

Environmental: Visually, Site #22 can only be seen from the west end of Traitors Cove. Visitors viewing the "gate," outlet of the salt chuck, will be able to see both the LTF and access road. Site #22 is obscured from the main body of Traitors Cove.

Tideland Plans: There are no current tideland plans for this area.

Recommendations: Conduct a marine investigation for the site and a segregated rafting area.

Due to the tight configuration of the LTF and access road concerning alignment and grade, it is recommended that field road location be accomplished prior to selection of this site. It appears that Site #23 is more roadable than Site #22.



NORTH TRAITORS COVE Site #23

Location: NW 1/4 NW 1/4 Sec. 9, T. 71 S., R. 90 E. KTN C-5
 55° 43' 57" N. 131° 38' 01" W.

Proposed Volume: 10 MMBF

Facility Type: A-frame with bulkhead and guide rails. The terrain does not lend to use of a flow-angle slide.

Upland Area: The upland area contains steep slopes of 35-to-40 percent. Development of an operating area will require a large rock cut.

Rafting Area: Rafting may require several stages due to excessive water currents. This might include use of a log boom at the LTF site, then move each day's cut to a rafting area 3/4 mile southwest or 1/2 mile southeast across the bay.

Barge Off-Load: Initial and subsequent barge landings can be accomplished adjacent to the site.

Camp Facilities: Same as for Site #22: The access route will be steep (18 percent and up and will have tight curves). Road cuts and LTF excavation will be large. The terrain the tributary area is very steep limiting opportunities to access the shore line.

Access: The access route entering the operating will be at about 12 percent grade.

Site #23 is situated to take advantage of a small valley that allows a route to access the tributary harvest area via more desirable terrain. Such access opportunities in this tributary harvest area are very limited due to the extensive steep terrain in the area.

Marine Conditions: The beach is of large cobbles on 35 percent side slope. Tidal currents are very strong at the site due to the outlet of the slat chuck 1/2 mile southeast of the site. This will insure flushing.

Fisheries: Cataloged fish stream #101-90-22 lies approximately 100 feet east of the site.

Other

Environmental: Site #23 will be visible from part of the central portion of Traitors Cove and highly visible from directly east of the salt chuck outlet. The shoreline is steep which provides favorable characteristics for minimizing the footprint on the tidelands.

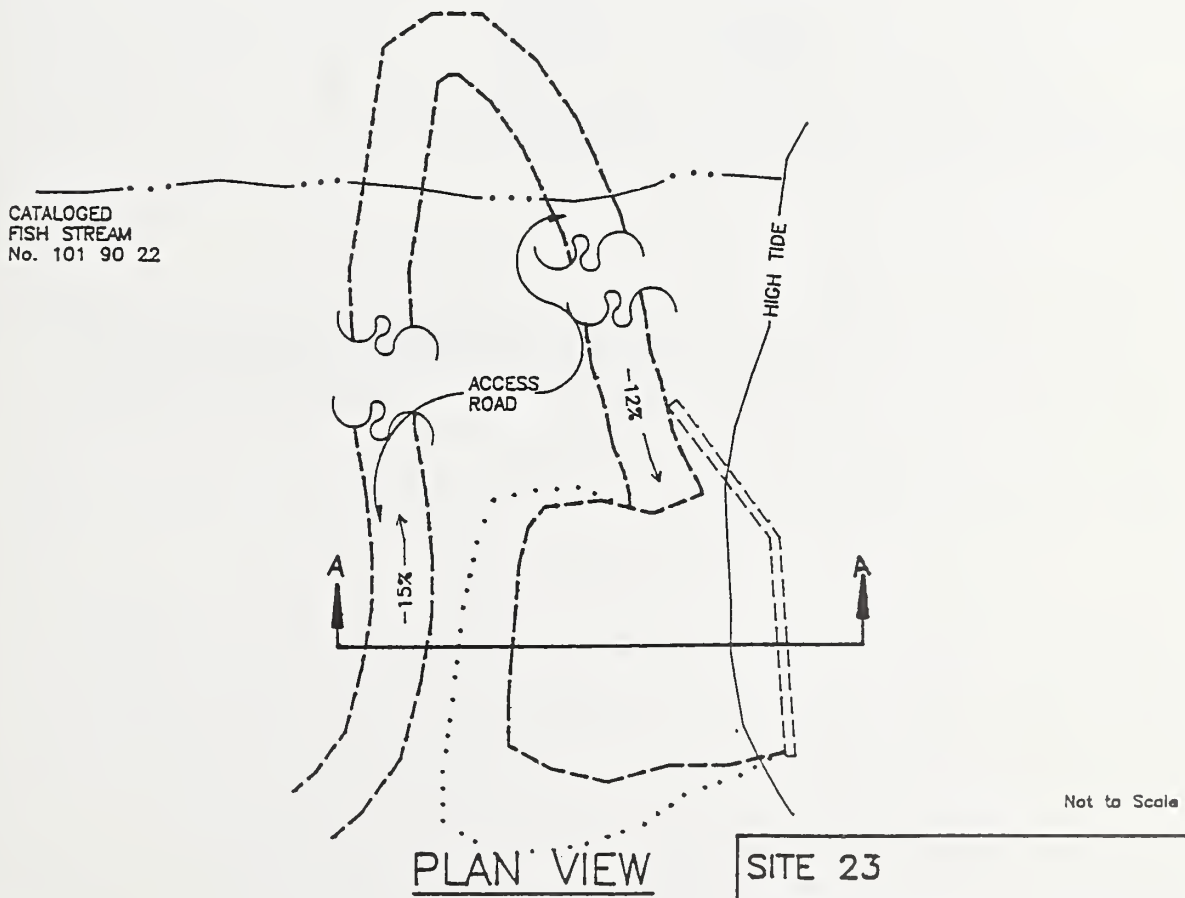
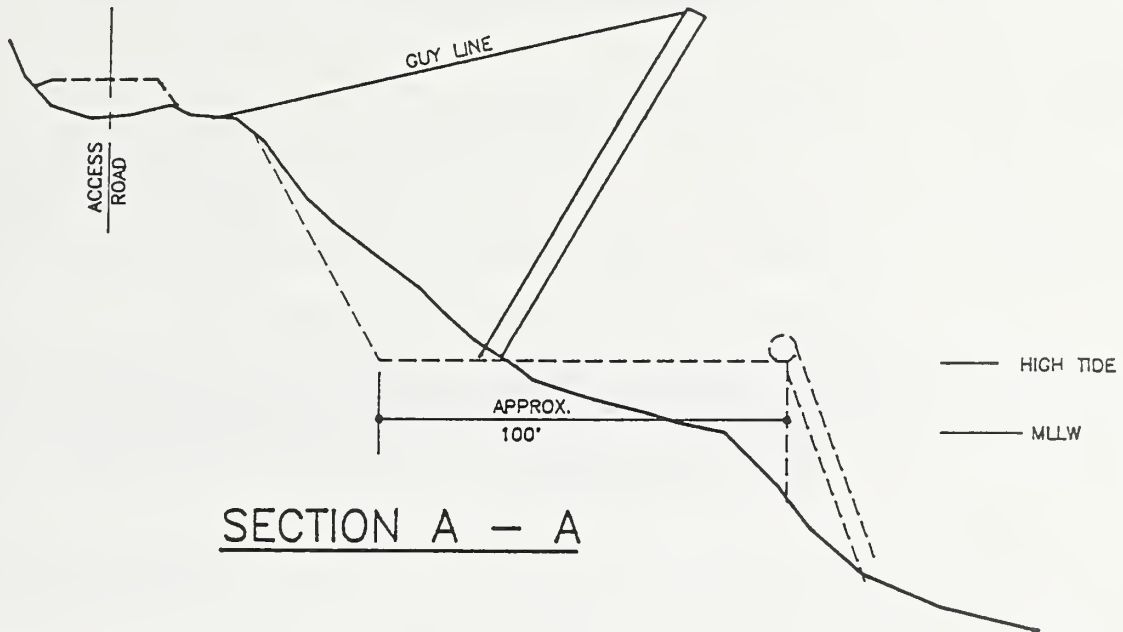
APPENDIX G

Tideland Plans: There are no current tideland plans for this area.

Recommendations: Conduct a marine investigation for the site and a segregated rafting area.

Verify proximity of fish stream #101-90-22 with respect to the site.

Site #23 is the preferred site due to suitable access opportunities.



RHOES11

MARGARET BAY Site #24

Location: SW 1/4 NW 1/4 Sec. 21, T. 71 S., R. 90 E. KTN C-5
55° 42' 04" N. 131° 38' 01" W.

Proposed Volume: 81 MMBF

Facility Type: Existing A-frame lift-off with bulkhead and guide rails.

This facility is currently in operation.

The existing facility is located on Forest Service lands within a State selection area. Easements have been retained for both the LTF and Forest access roads within the selection area.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

June 17, 1992

Mr. James Rhodes
U.S. Forest Service, Ketchikan Area
Federal Building
Ketchikan, Alaska 99901

Dear Mr. Rhodes:

Enclosed are the results of the May 1992 log transfer facility investigations for Thorne Island, Stevenson Island, Hassler Island, and Neets Bay and Traitors Cove on Revillagigedo Island. If you have any questions regarding the report you may contact Duane Petersen in Juneau at 586-7235.

Thank you for your support and cooperation during the site investigations.

Sincerely,

Steven T. Zimmerman, Ph.D., Chief
Protected Resources Management Division

cc: FWS, Juneau, Ketchikan
ADFG Habitat, Juneau, Ketchikan
EPA, Anchorage



U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Protected Resources Management Division
Juneau, Alaska

and

U.S. Department of the Interior
Fish and Wildlife Service
Southeast Alaska Ecological Services
Juneau, Alaska

Report of Field Investigations
Thorne Island, Stevenson Island, Hassler Island, and Neets Bay
and Traitors Cove on Revillagigedo Island

May 11-14, 1992

In response to a request from Mr. James Rhodes, Ketchikan Area, USDA Forest Service (FS), personnel from the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) investigated, in concert, the intertidal/subtidal habitats of locations in Whale Passage and Kashevarof Passage (Figure 1), and Behm Canal (Figure 2), for proposed log transfer facilities (LTF). Copies of aerial photographs of the proposed LTF sites are shown in Appendix A.

Our records show that an investigation of other protential LTF sites on Thorne Island and Stevenson Island was done in September 1976. A copy of that report is enclosed for your information.

Over the years the timber industry has employed the technique of placing logs in marine waters, constructing log rafts, storing the rafts, and towing rafts to processing centers. While not always obvious, a significant bark loss results from such activities. What happens to the dislodged bark is dependent on numerous variables, but most often bark is found to accumulate in areas of high log handling activity in quantities sufficient to smother bottom dwelling organisms. The effects of such losses can be reflected through the food chain.

There are two approaches to lessening the harmful effects of concentrated bark deposits: 1) to select sites where prevailing features or conditions will facilitate bark dispersal, and 2) to select sites which display relatively low biological resource value. Our site selection techniques are designed to consider each approach, and where possible, identify sites which satisfy criteria for both.



Figure 1. Proposed Log Transfer Facility Sites on Thorne Island and Stevenson Island. Underwater investigations conducted May 1992.

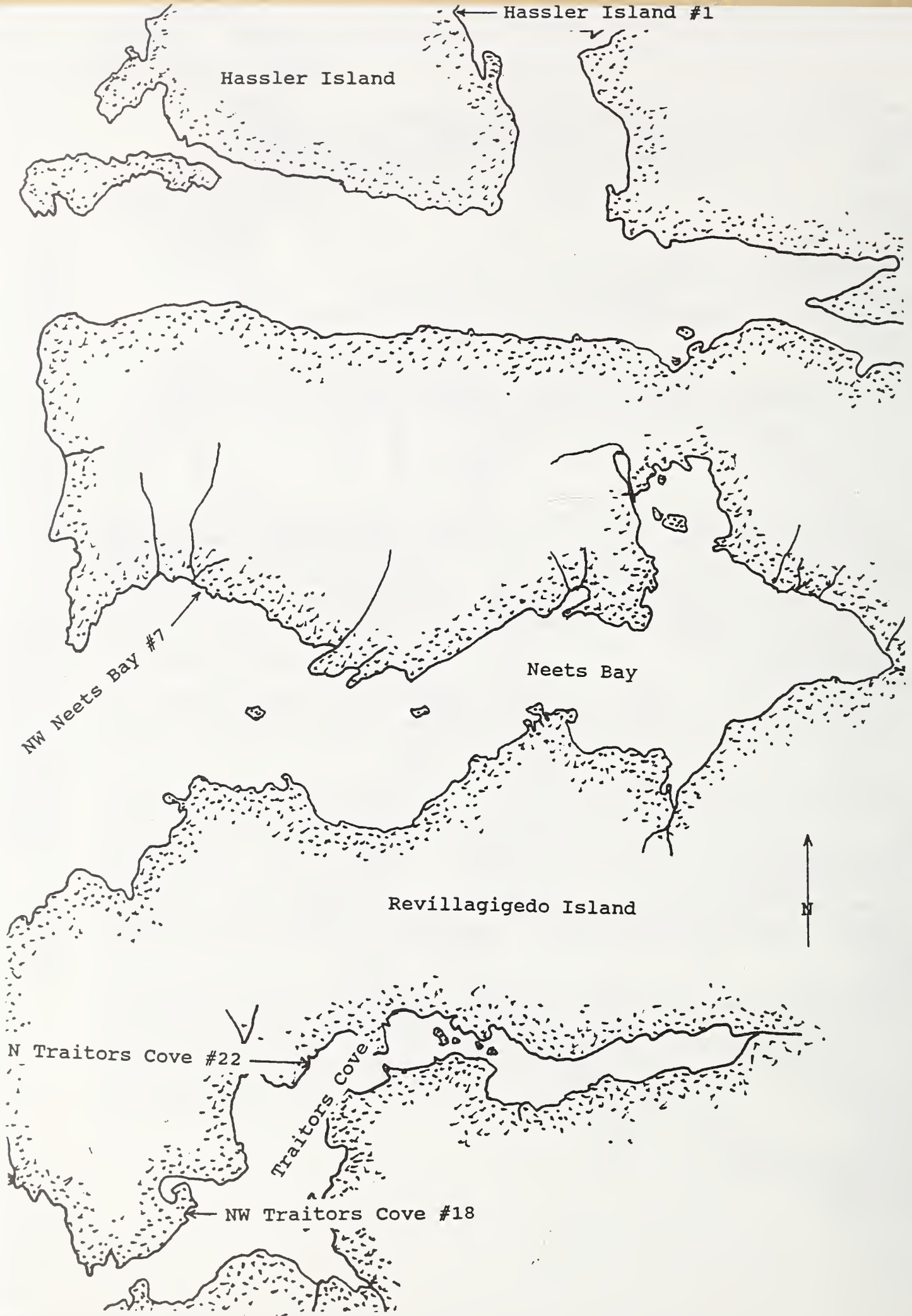


Figure 2. Proposed Log Transfer Facility Sites on Hassler Island, in Neets Bay and Traitors Cove, Revillagigedo

OBJECTIVES

Investigations were directed at achieving the following study objectives:

1. Investigate subtidal habitat at potential log transfer sites to determine: a) the physical characteristics including depth, slope, substrate, and current patterns; and b) the biological characteristics of productivity and diversity.
2. Analyze information collected on each site, and compare results both with the Timber Task Force log transfer facility siting guidelines¹ and with results on other nearby sites.
3. Present a recommendation relative to the use of the investigated sites for log transfer activities.

METHODS

A transect line, 100-meters long, was extended seaward from the proposed site perpendicular to the shoreline. Self Contained Underwater Breathing Apparatus (SCUBA) was employed to gather intertidal/subtidal information along the transect line as well as in the general area of potential impact. Observations of physical and biological characteristics were made at 5-meter intervals along the transect line. Observations included water depth, substratum composition, plant species, animal species, and obvious changes in zonation. In addition, the general characteristics of the area, and evidence of current flow patterns, or the lack thereof, were noted subjectively.

RESULTS AND RECOMMENDATIONS

A discussion for each area investigated follows. Species observed in each area are listed in Table 1.

W. Thorne Island

The investigation occurred on the west side of Thorne Island. A bottom profile of the underwater transect is shown in Figure 3. The physical attributes of the site are characterized as being shallow, 11.1-meters deep at the end of the transect. Substratum is composed of bedrock/cobble from the extreme high water line to 40 meters from shore giving way to a silt/cobble bottom to the end to the transect. Flushing potential is low as evidenced by the presence of silt within the bottom composition.

¹1985, Log Transfer Facility Siting, Construction, Operation and Monitoring/Reporting Guidelines, Governor's Timber Task Force.

Substrate Types

Bedrock- BR
 Boulder- B
 Cobble - C
 Pebble - P
 Sand - S
 Silt - SL

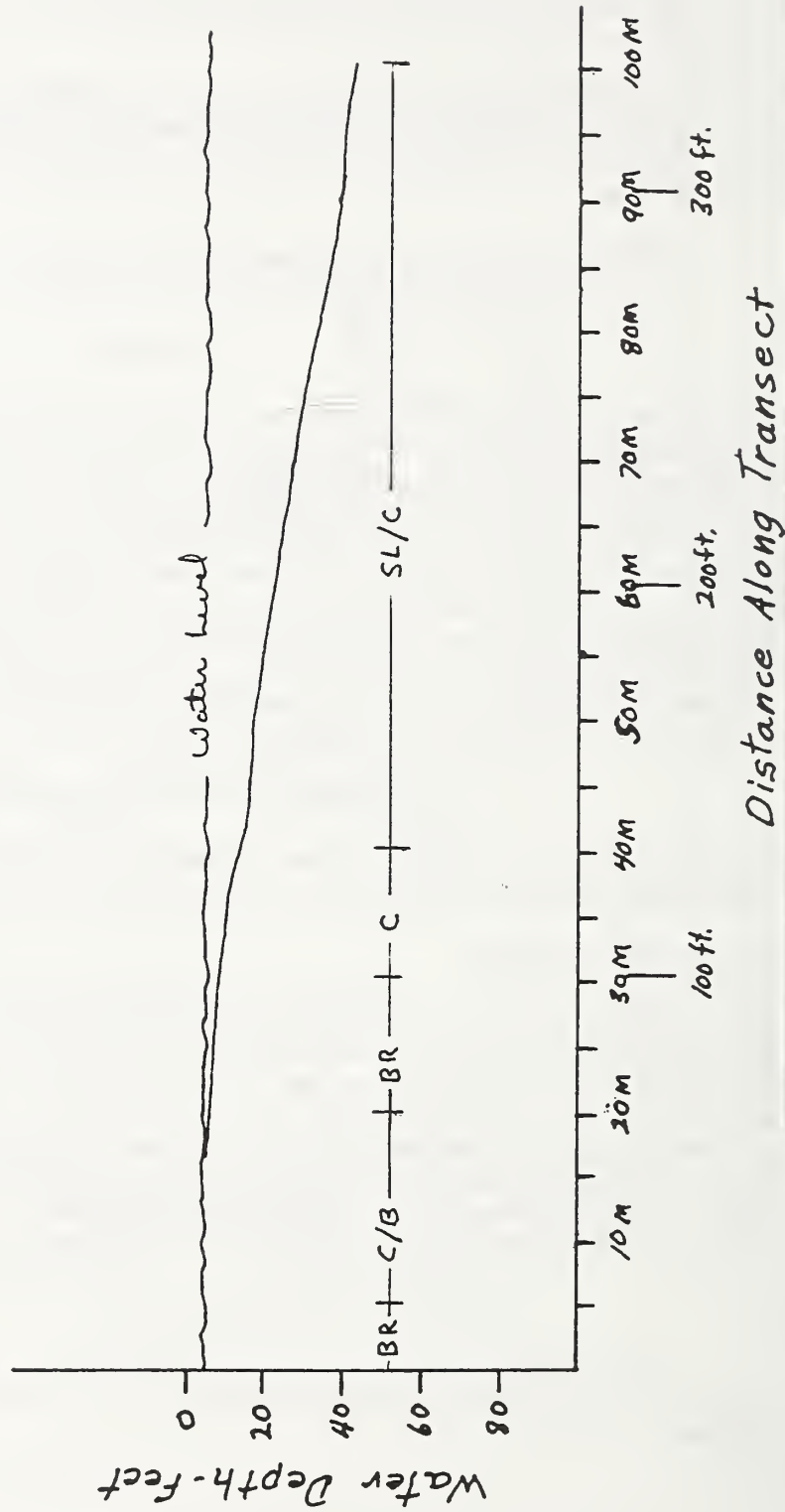


Figure 3. Dive Transect Depth-Distance Profile at Proposed Log Transfer Facility at W Thorne Island #1, May 11, 1992.

Table 1. List of plant and animal species observed along underwater transects at Thorne Island (A), Stevenson Island (B), Hassler Island (C), N.W. Neets Bay (D), N.W. Traitors Cove (E), and N. Traitors Cove (F), May 11-14, 1992.

Aquatic Plants	Common Name	A	B	C	D	E	F
<u>Agarum cribrosum</u>	Brown algae			x		x	x
<u>Alaria marginata</u>	Brown algae	x	x				
<u>Constantinea simplex</u>	Red algae						x
<u>Desmarestia</u> spp	Brown algae	x	x	x		x	x
<u>Enteromorpha intestinalis</u>	Green algae				x	x	
Filamentous Brown	Brown algae			x		x	x
Filamentous Green	Green algae		x				
<u>Fucus</u> spp	Brown algae	x	x	x	x	x	x
<u>Halosaccion glandiforme</u>	Red algae	x					
<u>Laminaria</u> spp	Brown algae	x	x	x		x	x
<u>Lithothamnion</u> spp	Encrusting algae					x	x
<u>Odonthalia</u> spp	Red algae	x	x	x			x
<u>Palmeria</u> spp	Red algae	x				x	x
<u>Ralfsia pacifica</u>	Brown algae		x				x
<u>Ulva/Monostroma</u> spp	Green algae	x	x	x		x	x
<u>Zostera marina</u>	Elgrass			x	x		
Aquatic Invertebrates	Common Name	A	B	C	D	E	F
<u>Archidoris ohdeneri</u>	White doris					x	
<u>Balanus</u> spp	Barnacle	x	x	x	x	x	x
<u>Cancer productus</u>	Red rock crab			x			
<u>Ceratostoma foliatum</u>	Foliated Thorn Purpura		x	x			x
<u>Chlamys</u> spp	Pink scallop					x	x
<u>Cnemidocarpa finmarkiensis</u>	Smooth red tunicate						x
<u>Collisella pelta</u>	Shield limpet	x	x	x		x	x
<u>Corella willmeriana</u>	Glass tunicate			x			
<u>Coryphella</u> spp	Small eolis					x	
<u>Cucumaria miniata</u>	Orange sea cucumber		x			x	x
<u>Dendronotus dalli</u>	Dall's fron eolis						x
<u>Dermasterias imbricata</u>	Leather star					x	x
<u>Elassochirus tenuimanus</u>	Big-clawed hermit crab				x	x	x
<u>Evasterias troschelii</u>	Molted star	x	x			x	
<u>Fusitriton oregonensis</u>	Oregon triton					x	
<u>Halocynthia aurantium</u>	Sea peach						x
<u>Hyas lyratus</u>	Lyre crab		x			x	x
Limpet	Limpet	x	x			x	x
<u>Mediaster aequalis</u>	Vermillion star						x
<u>Metridium senile</u>	Fine-tentacled anemone	x				x	
<u>Mytilus edulis</u>	Blue mussel	x	x	x		x	x
<u>Ophiura</u> spp	Serpent stars		x				
<u>Oregonia gracilis</u>	Decorator crab		x		x	x	
<u>Orthasterias koehleri</u>	Spiney star			x		x	x
<u>Pachycerianthus fimbriatus</u>	Tube anemone				x		x

Table 1. (Continued) List of plant and animal species observed along underwater transects at Thorne Island (A), Stevenson Island (B), Hassler Island (C), N.W. Neets Bay (D), N.W. Traitors Cove (E), and N. Traitors Cove (F), May 11-14, 1992.

Aquatic Invertebrates	Common Name	A	B	C	D	E	F
<u>Pagurus</u> spp	Hermit crab	x	x	x	x	x	x
<u>Pandalus</u> <u>danae</u>	Dock shrimp	x	x				x
<u>Pandalus</u> <u>platyceros</u>	Spot shrimp		x				
<u>Parastichopus</u> <u>californicus</u>	Mop sea cucumber	x	x	x		x	x
<u>Pisaster</u> <u>brevispinus</u>	Pink short-spined star				x		x
<u>Ptilosarcus</u> <u>gurneyi</u>	Sea pen						x
<u>Pteraster</u> <u>tesselatus</u>	Slime star						x
<u>Pycnopodia</u> <u>helianthoides</u>	Sunflower star	x	x			x	x
<u>Serpula</u> <u>vermicularis</u>	Common serpulid	x	x	x		x	x
Snail	Snail	x	x	x	x	x	x
<u>Strongylocentrotus</u> <u>d.</u>	Green sea urchin		x				
<u>Telmessus</u> <u>cheiragonus</u>	Horse crab	x				x	x
<u>Thais</u> spp	Snail	x	x				
<u>Tonicella</u> spp	Chiton					x	x
Marine Fish	Common Name	A	B	C	D	E	F
<u>Lumpenus</u> <u>sagitta</u>	Snake prickleback	x					
<u>Pholis</u> <u>laeta</u>	Crescent Gunnel	x					
<u>Hexagrammos</u> spp	Greenling					x	x
<u>Sebastes</u> spp	Rockfish						x
<u>Lepidopsetta</u> <u>bilineata</u>	Rock sole					x	

Animal and plant species observed were those common to this type of habitat. Species variety was low with barnacles (Balanus spp), mussels (Mytilus edulis) being most abundant. The most abundant algae species noted was the brown algae Laminaria spp.

This site does not meet the Timber Task Force LTF siting guidelines for water depth and potential bark accumulation. However, the site is low in overall productivity and we would not have any objection to the construction and operation of a LTF at this location.

Stevenson Island, Site #2

The site is exposed to the north. A bottom profile of the underwater transect is shown in Figure 4. The physical attributes of the site are characterized as a shallow slope of cobble and bedrock to 60 meters (water depth of 8.4 meters) from the extreme high tide line. From 60 meters to the end of the transect the bottom is composed of silt with a mix of cobble. Water depth at the end of the transect was 16.5 meters. Flushing potential is low at the end of the transect as evidenced by the silty bottom. Flushing along the first 60 meters should be good because of exposure to the north and rock bottom.

Animal and plant species observed were those common to this type of habitat with one exception, the spot shrimp (Pandalus platyceros). Overall species abundance and variety was low with barnacles (Balanus spp), and the sea mop cucumber (Parastichopus californicus) being most abundant. The two most abundant algae species noted were Fucus spp and Laminaria spp.

This site does not meet the Timber Task Force LTF siting guidelines for water depth because of the shallow sloping bottom and for the potential for bark accumulation along the last 40 meters of the transect. However, biological productivity is low and this location is appropriate for the construction and operation of a LTF.

Hassler Island, Site # 1

The underwater investigation occurred about 945 meters northwest of the existing LTF. A bottom profile of the transect is shown in Figure 5. The physical attributes of the site are characterized as a very shallow slope (5.1 meters deep at the end of the transect). The bottom is comprised of bedrock and a cobble/pebble mixture to 35 meters from the extreme high water line. From 35 meters to the end of the transect, the bottom was composed of sand with a few pebbles. Flushing potential would be moderate as evidenced by the presence of clean sand.

Animal and plant species observed were common to this type of habitat. Species variety was low with barnacles (Balanus spp) and snails being most abundant. The most abundant algae was Laminaria spp. Eelgrass (Zostera marina) occurred in a dense

- Substrate Types
- Bedrock- BR
 - Boulder- B
 - Cobble - C
 - Pebble - P
 - Sand - S
 - Silt - SL

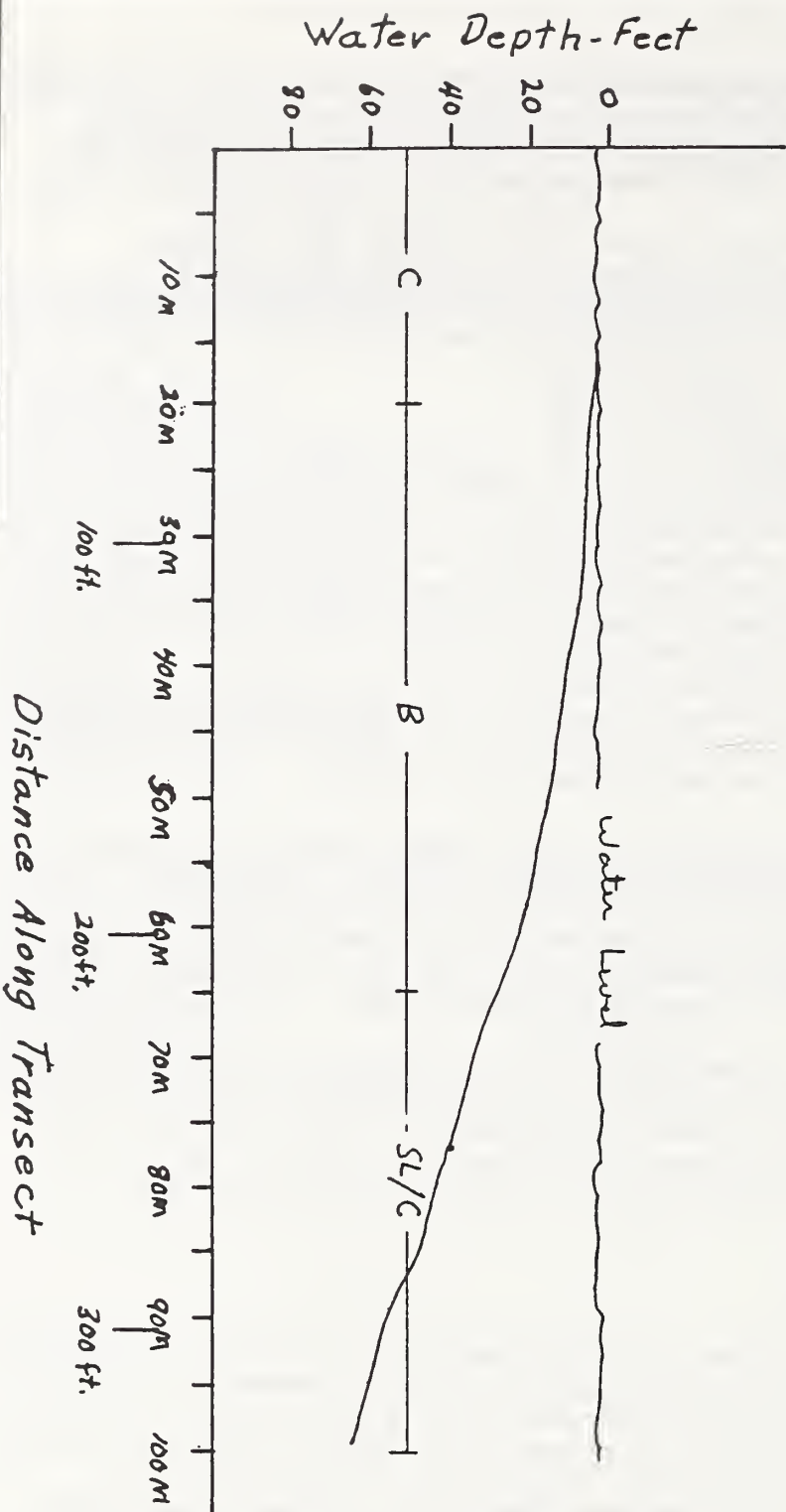


Figure 4. Dive Transect Depth-Distance Profile at Proposed Log Transfer Facility at Stevenson Island #2, May 12, 1992.

Substrate Types

Bedrock- BR
 Boulder- B
 Cobble - C
 Pebble - P
 Sand - S
 Silt - SL

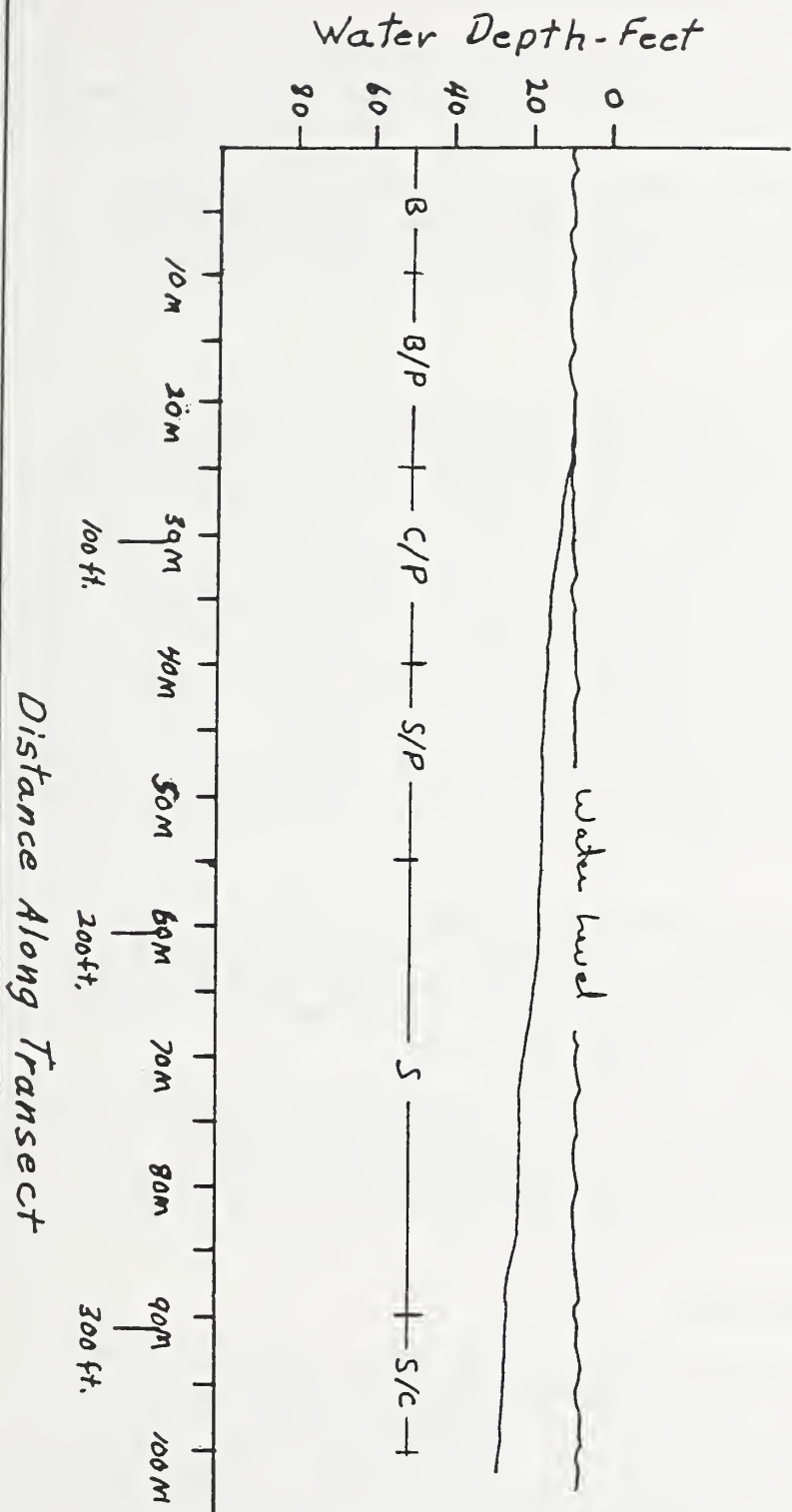


Figure 5. Dive Transect Depth-Distance Profile at Proposed Log Transfer Facility at Hassler Island #1, May 12, 1992.

band from 42 meters from the extreme high tide line to 93 meters along the transect.

This site does not meet the Timber Task Force LTF siting guidelines, including the criteria for water depth and site productivity. We recommend this site not be used for the transfer of timber. Use of the existing facility is preferred.

N.W. Neets Bay, Site #7

The previously used LTF, N.W. Neets Bay #6 is on a cataloged anadromous fish stream, therefore, we conducted an underwater investigation of this alternative location. The transect began at the extreme high tide line. Physical attributes of the site are characterized as a cobble substratum to 40 meters grading into sand to the end of the transect. The slope is shallow with a water depth of 5.1 meters at 80 meters along the transect tape. Beyond 80 meters the slope increased rapidly with a depth of 13.5 meters at the end of the 100-meter long transect tape and beyond. The last 10 meters of the transect was covered with logging debris. It was evident that log storage occurred in this area in the past. With exposure to the south, flushing potential is good to the drop-off, about 85 meters from shore, as evidenced by the lack of silt within the bottom material. A bottom profile is shown in Figure 6.

Animal and plant species observed were few. Abundance was low in both animal and plant species. A sparse band of eelgrass occurred from the 75 meter mark to the 87 meter mark of the transect line. The most abundant animal species noted were snails and barnacles in the intertidal zone.

This site meets the Timber Task Force Guidelines for siting of a LTF except for the shallow slope. However, with little biological productivity noted in the area we find this site suitable for the construction and operation of a log transfer facility.

N.W. Traitors Cove, Site #18

This site was the most productive of the sites visited on the trip. Extensive beds of blue mussels (Mytilus edulis) and barnacles (Balanus spp) inhabited to intertidal and shallow subtidal. Commercial quantities of sea cucumbers (Parastichopus californicus) were noted in the area. The large macrophytes Laminaria spp and Agarum cribrosum covered the rocky bottom. A bottom profile of the transect is shown in Figure 7. Physical attributes of the site are characterized as being moderately sloping with a water depth of 14.1 meters at the end of the transect. The substratum is composed of cobble/pebble/bedrock to the 50 meter mark on the transect line which graded in a sand/boulder/cobble to the end of the transect. No current was noted during the investigation and logging debris is not expected to disperse.

Substrate Types

Bedrock - BR
 Boulder - B
 Cobble - C
 Pebble - P
 Sand - S
 Silt - SL

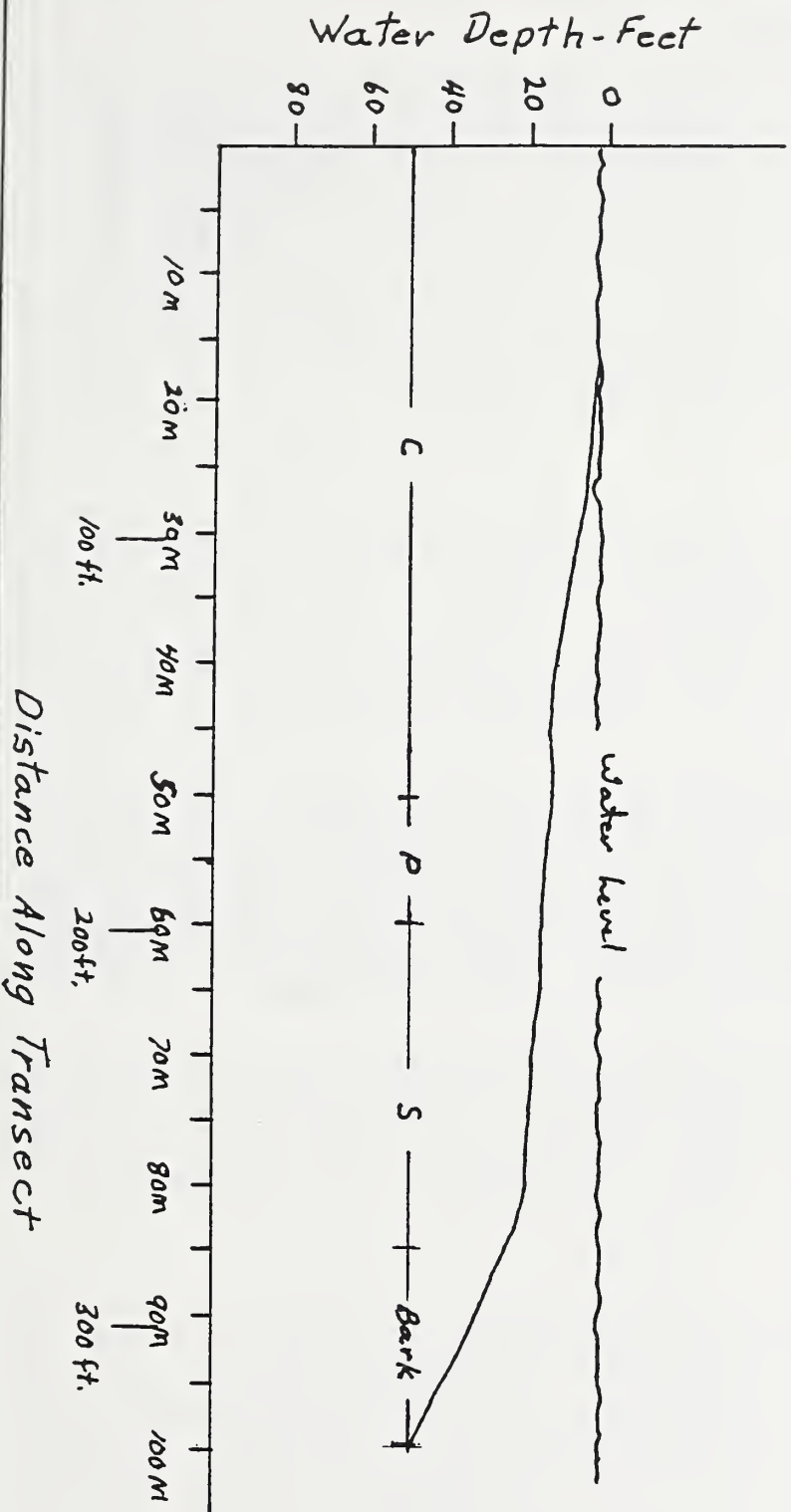


Figure 6.

Dive Transect Depth-Distance Profile at Proposed Log Transfer Facility at NW Neets Bay #7, May 13, 1992.

Substrate Types

Bedrock - BR
 Boulder - B
 Cobble - C
 Pebble - P
 Sand - S
 Silt - SL

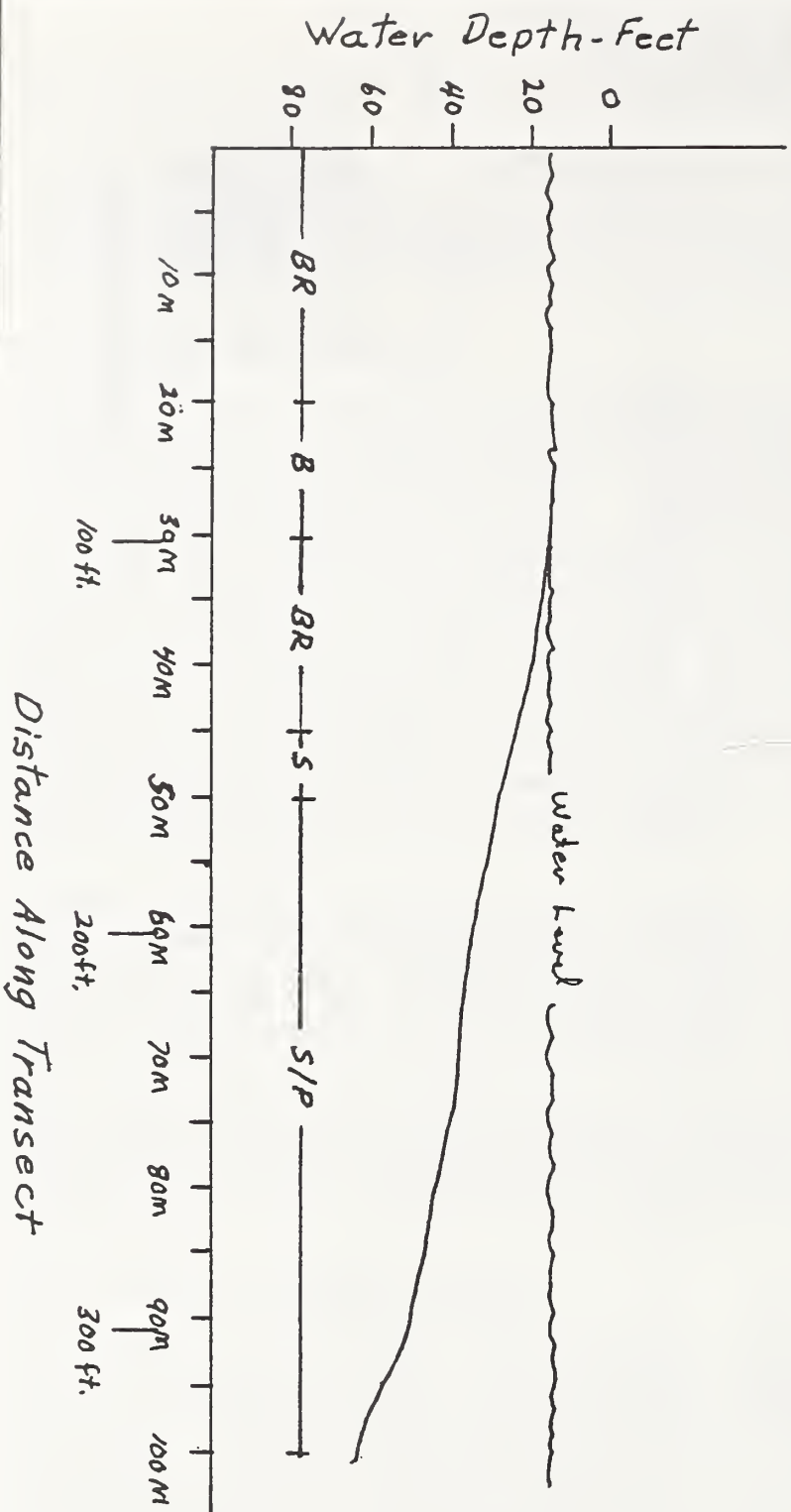


Figure 7. Dive Transect Depth-Distance Profile at Proposed Log Transfer Facility at NW Traitors Cove #18, May 13, 1992.

This site is very productive in terms of biomass. Plant and animal species are diverse and numerous. This site does not meet the Timber Task Force LTF siting guidelines, including the criteria for water depth, site productivity, and potential bark accumulation. We do not recommend construction of a LTF at this site. However, if the LTF is moved to the southwest shore of the bight the footprint of the LTF would be significantly smaller. This would reduce the bottom area covered which will reduce the effects of LTF construction on the aquatic environment. The exact location of the preferred site along with its alignment was coordinated with Jim Rhodes, USDA Forest Service.

N. Traitors Cove, Site #22

A bottom profile of the underwater transect is shown in Figure 8. The physical attributes of the site are characterized as being with a fairly constant slope. Water depth was 19.5 meters at the end of the transect. Substratum is composed of bedrock from the extreme high water line to 40 meters giving way to a sand/pebble bottom to the end of the transect. Flushing potential is moderate as evidenced by the presence of a sandy bottom.

Animal and plant species observed were those common to this type of habitat. Commercial quantities of the sea cucumber (Parastichopus californicus) were noted in the area. Species variety was normal with the sea cucumber and the tube anemone (Pachycerianthus fimbriatus) being most abundant. The most abundant algae species noted were the brown algae Agarum cribrosum and Laminaria spp. The encrusting algae Lithothamnion spp covered much of the exposed bed rock surface.

Biologically, this site is quite productive and does not meet the Timber Task Force LTF siting guidelines because of the large number of sea cucumbers. However, we believe with the amount of timber proposed to be transferred, this site is appropriate for the construction and operation of a LTF.

CAVEAT

The recommendations of the proposed sites indicated as suitable for LTFs are based upon observations of estuarine habitat made during a limited time period. It should be noted the observations over time were not made and as a result, seasonal changes in habitat use, including fish and shellfish spawning occurrences were not observed. Further, recommendations offered relate to aquatic observations only. Use of adjacent uplands by animals or birds, including bald eagles, was not considered.

Substrate Types

Bedrock-	BR
Boulder-	B
Cobble -	C
Pebble -	P
Sand -	S
Silt -	SL

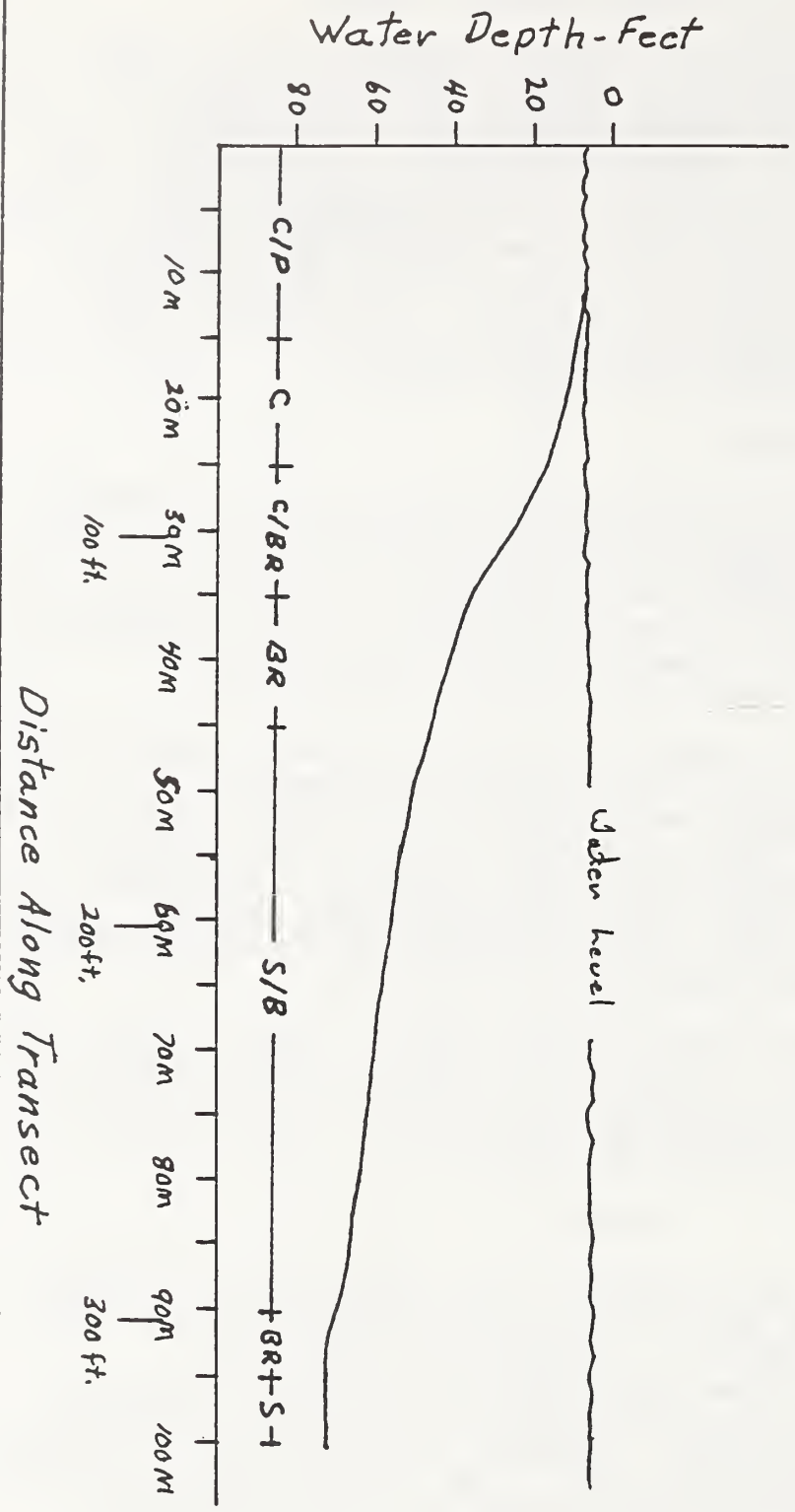


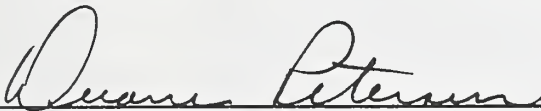
Figure 8. Dive Transect Depth-Distance Profile at Proposed Log Transfer Facility at N Traitors Cove #22, May 14, 1992.

ACKNOWLEDGEMENTS

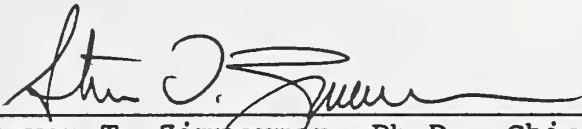
Duane Petersen, NMFS Juneau, Alaska, Chuck Osborn, FWS Ketchikan, and Ed Grossman, FWS Juneau, Alaska, were the principle investigators for these field investigations and were responsible for preparation of this report.

Jim Rhodes, FS Ketchikan, Alaska, represented the FS. Richard Guhl, FS Ketchikan, Alaska, served as skipper aboard the FS vessel M/V Tongass Ranger.

NATIONAL MARINE FISHERIES SERVICE

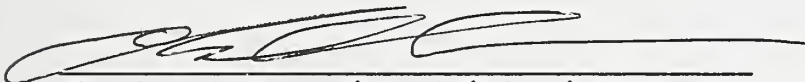


Duane H. Petersen, Diver/Biologist

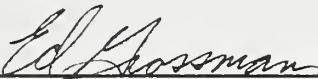


Steven T. Zimmerman, Ph.D., Chief
Protected Resources Management Division

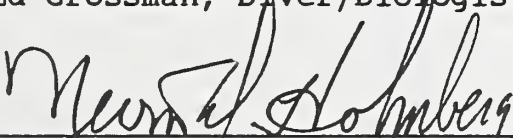
U.S. FISH AND WILDLIFE SERVICE



Chuck Osborn, Diver/Biologist



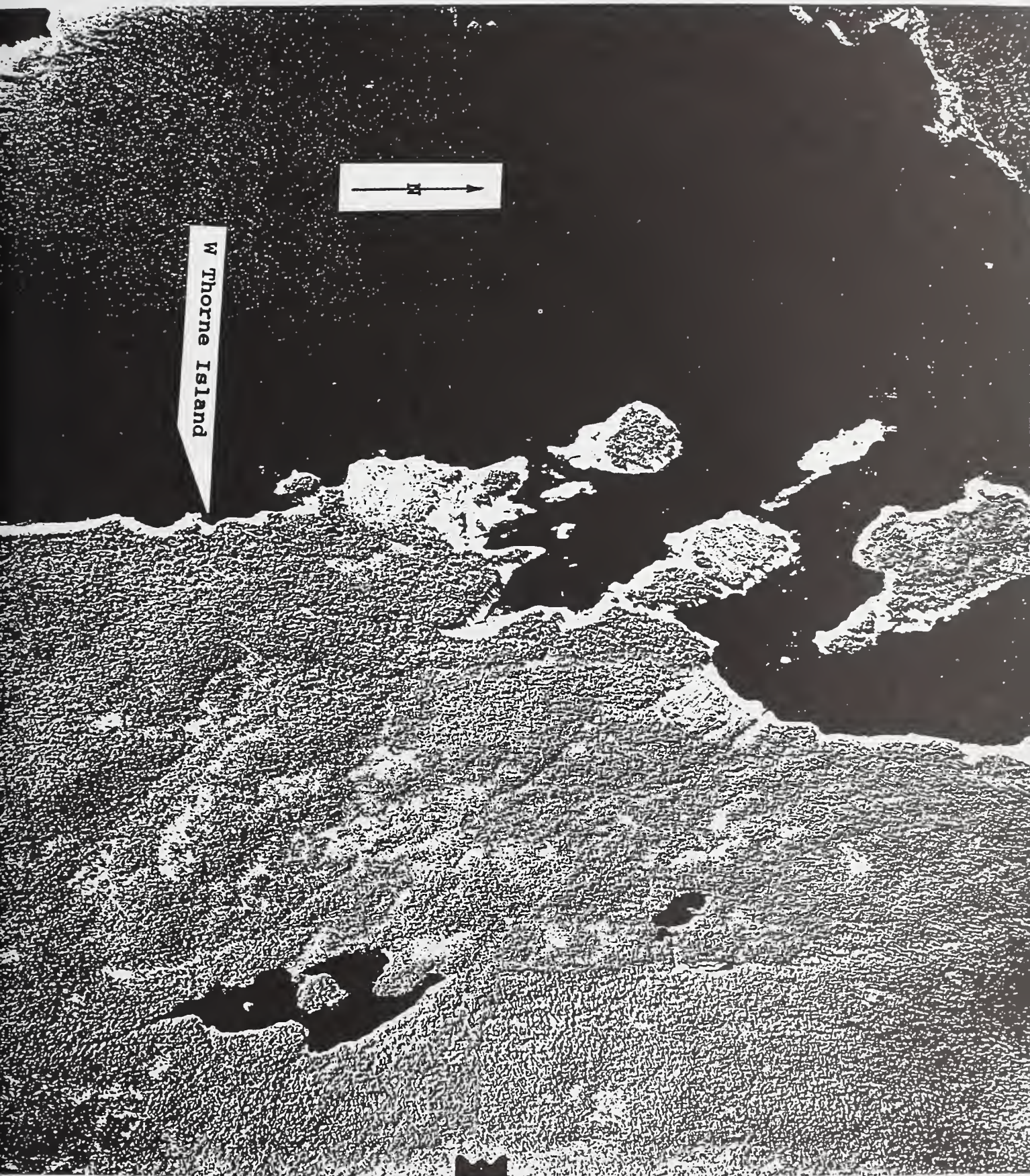
Ed Grossman, Diver/Biologist



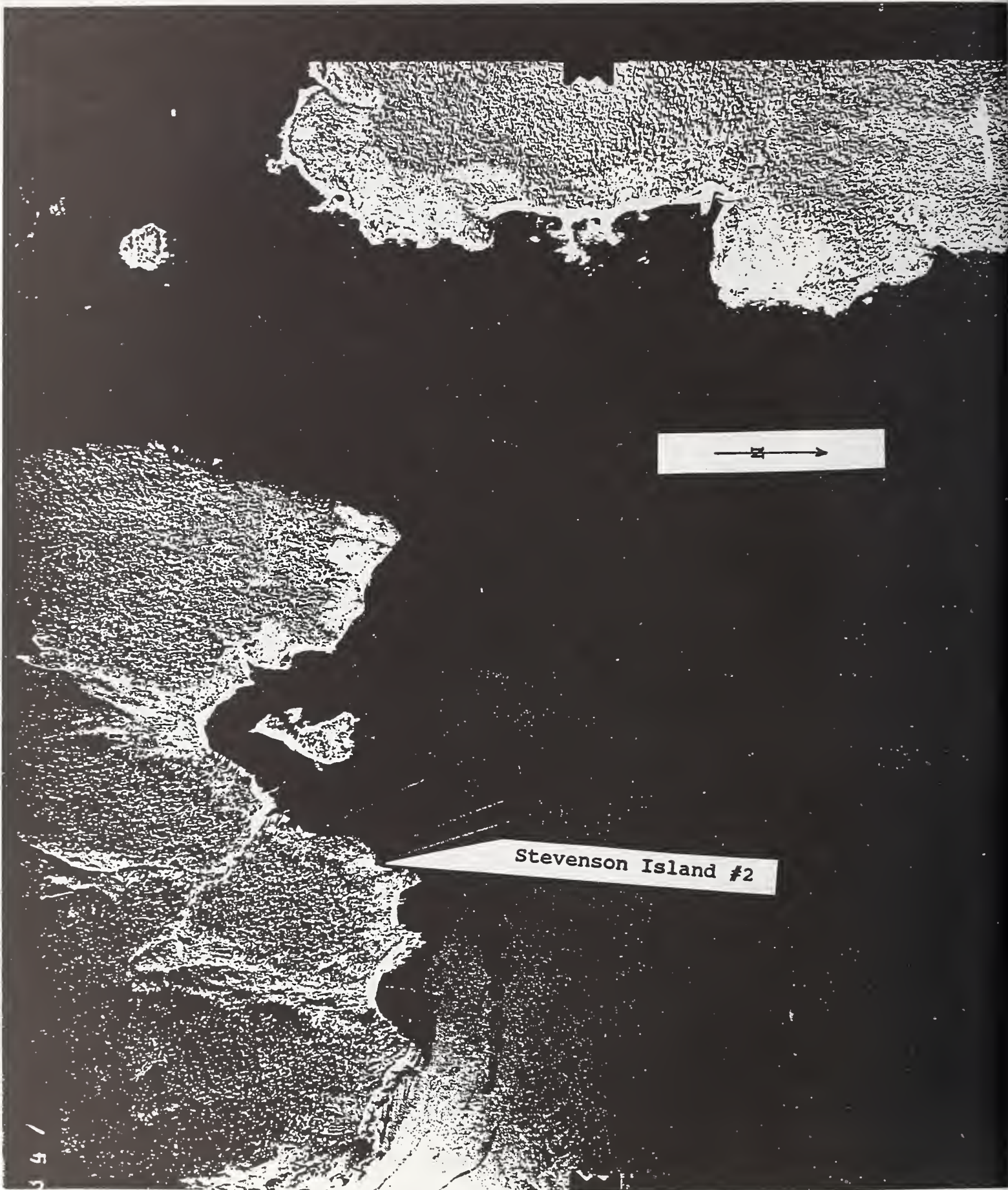
Nevin D. Holmberg, Field Supervisor
Ecological Services, Juneau, Alaska

APPENDIX A

Aerial Photographs of Proposed Log Transfer Facility Sites



Appendix A-1. W Thorne Island proposed LTF location.



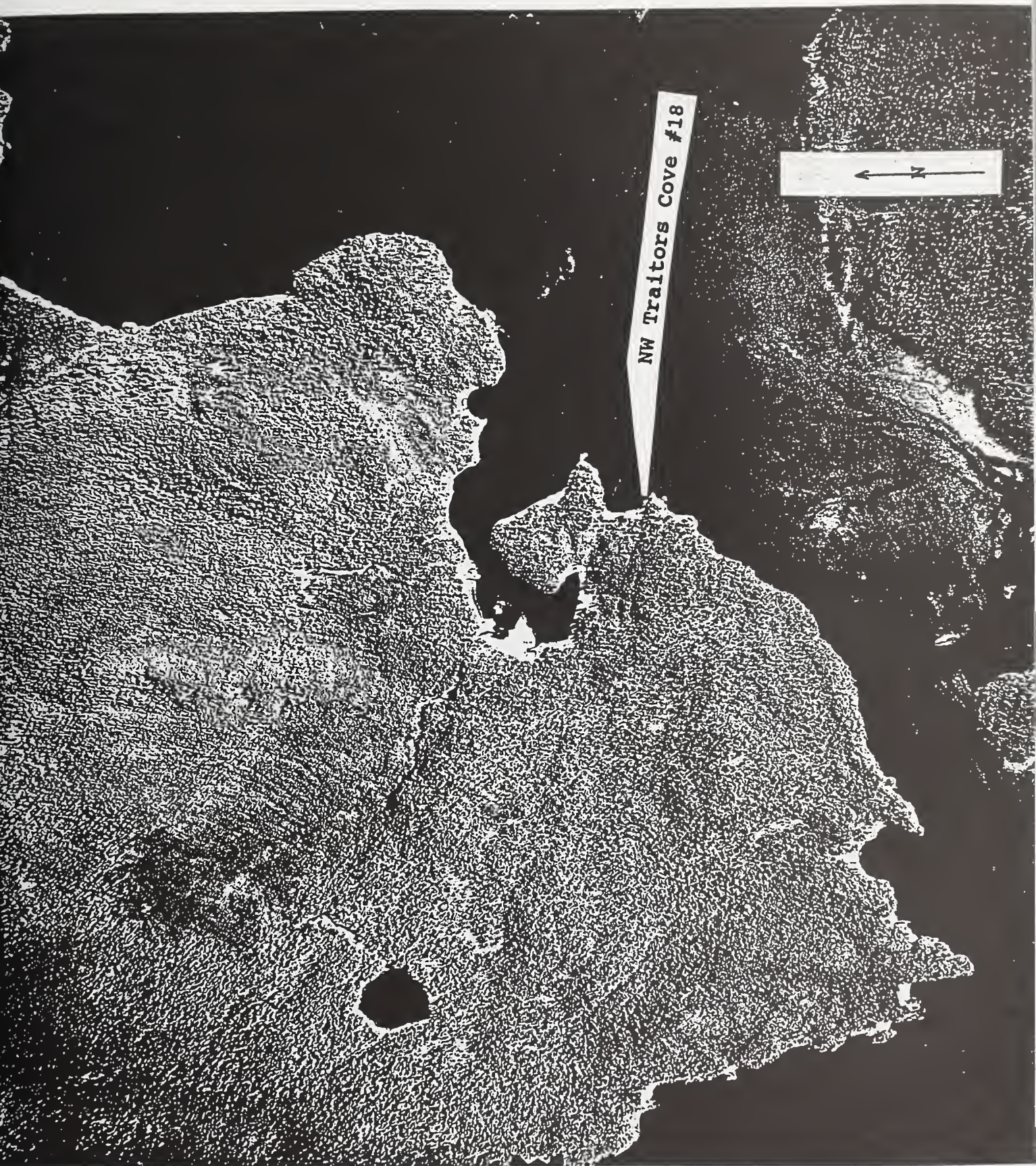
Appendix A-2. Stevenson Island proposed LTF location.



Appendix A-3. Hassler Island #1 proposed LTF location.



Appendix A-4. NW Neets Bay #7 proposed LTF location.



Appendix A-5. NW Traitors Cove #18 proposed LTF location.

8-73

F-101N 4038

02190 473

N Traitors Cove #22



Appendix A-6. N Traitors Cove #22 proposed LTF location.

LOG TRANSFER SITE EVALUATION

Log transfer sites were selected and evaluated with respect to the interagency Log Transfer Siting Guidelines. Following are the siting guidelines used to evaluate the Log Transfer Sites.

SITING GUIDELINES

Proximity to Rearing and Spawning Areas: Siting of log storage and transfer facilities within 300 feet of mouths of anadromous fish streams or in areas known to be important for fish spawning or rearing is normally prohibited.

Protected Locations: Log transfer and log raft storage facilities should be sited in weather protected waters with bottoms suitable for anchoring and at least 20 acres for temporary log storage and booming.

Upland Facility Requirements: Log transfer facilities should be sited near at least five acres of relatively flat uplands. There should also be a body of water sufficient to provide a minimum of 60 linear foot facility face.

Safe Access to a Facility From the Uplands: To provide safe access to the log transfer facility and adjoining log sort yard, the facility should be sited where access roads can maintain a grade of 10 percent or less for trucks and four percent specialized equipment.

Bark Dispersal: Log transfer facilities should be sited along or adjacent to straits and channels or deep bays where currents may be strong enough to disperse sunken or floating wood debris. Siting log transfer facilities in embankments with sills or other natural restrictions to tidal exchange should be avoided.

Site Productivity: Sites for in-water storage and/or transfer of logs should be located in areas having the least productive inter-tidal and sub-tidal zones.

Sensitive Habitats: Log transfer facilities and log raft storage areas should not be sited on or adjacent to extensive tide flats, flat marshes, kelp, or eel grass beds, seaweed harvest areas, or shellfish concentration areas.

Safe Marine Access to Facilities: Log rafting and storage facilities should be accessible to tug boats with log rafts at most tides and on most days.

Storage and Rafting: Logs, log bundles, or log rafts should be stored in areas where they will not ground at low tide. A minimum depth of forty feet or deeper, measured at mean lower low water (MLLW), for log raft storage is preferred.

Avoid Bald Eagle Nest Trees: Site log transfer facilities to avoid Bald eagle nests. No project construction or operations should be closer than 330 feet to any Bald Eagle nest tree.

Additional interagency guidelines concerning LTF site construction and monitoring are included in Appendix E.

Existing sites were examined in accordance with the interagency siting guidelines to evaluate current adequacy. The existing sites do not necessarily meet all guides. For instance, several sites within the Project Area may be located within 300 feet of an anadromous fish stream.

An additional log transfer siting guideline dealing with recreation and visual considerations is as follows: log transfer facilities should be located where conflicts with existing boat anchorages will be minimized and views of the facility will be considered as seen from travel routes and use areas.

Table A-1 presents an evaluation of each site considered. Not that an N indicates that the site does not meet an individual guideline, accordingly a Y indicates that it does meet the individual guideline. An OK indicates that though the site does not fully meet an individual guideline, it is workable or a compromise.

In the case of Siting Guidelines S6 and S7, numerical evaluations are estimated on a scale of 1 to 10, 10 being high sensitivity or productivity, and 1 being low sensitivity or productivity.

Table A-1

LOG TRANSFER SITE EVALUATION

Alaska Timber Task Force Siting Guidelines

Site Status Name and Number	S1	S2	S3	S4	S5	<u>1/</u> S6	<u>1/</u> S7	S8	S9	S10
P Hassler N. 1	Y	Y	Y	Y	OK	7	6	Y	Y	Y
E Hassler 2	Y	OK	OK	Y	Y	5	5	Y	Y	Y
E Dress Point 3	Existing - Not used in any alternatives									
E Klu Bay 4	Existing - Not considered for relocation									
E Shrimp Bay 5	Existing - Current tideland lease									
E Chin Point 6	N	OK	Y	Y	OK	7	6	OK	Y	Y
P N.W. Neets 7	Y	OK	Y	Y	OK	7	5	OK	Y	Y
E N.W. Neets 8	Y	OK	N	Y	N	6	5	OK	Y	Y
P N.W. Neets 9	Y	OK	N	Y	N	6	5	OK	Y	N
E Clam Island 10	Existing - Not used in any alternatives									
E Same Cove 11	Existing - Not used in any alternatives									
D Easy 12	Y	Y	Y	N	OK	5	5	Y	Y	Y
D Easy 13	Y	Y	Y	N	OK	5	5	Y	Y	Y
D Easy 14	Y	Y	Y	N	OK	5	5	Y	Y	Y
E E. Neets 15	Y	Y	N	Y	N	9	9	OK	<u>2/</u> Y	Y
P E. Neets 15(a)	Y	Y	Y	Y	Y	4	4	Y	Y	Y
E Fire Cove 16	Existing - Current tideland lease									
E S.W. Neets 17	Existing - Current Tideland lease									
P N.W. Traitors 18	Y	Y	Y	Y	OK	7	5	Y	Y	Y
P N.W. Traitors 19	Y	Y	Y	Y	OK	8	6	Y	Y	Y
P N.W. Traitors 20	Y	Y	Y	Y	N	7	9	Y	Y	Y
P N.W. Traitors 21	Y	Y	Y	Y	N	7	9	Y	Y	Y
P N. Traitors 22	Y	N	N	Y	Y	7	5	Y	Y	Y
P N. Traitors 23	N	N	N	Y	Y	7	7	Y	Y	Y
E Margaret Bay 24	Existing - Current tideland lease									

1/ High productivity or sensitivity = 10. Low productivity or sensitivity = 1 on a scale of 1 to 10.

2/ Rafting would interfere with SSRA operations and facilities.

Appendix H

Silviculture Diagnosis

SILVICULTURE DIAGNOSIS - ALTERNATIVE #2

SILVICULTURE DIAGNOSIS - ALTERNATIVE #2																									PAGE 1 OF 25									
H	AU	RN	VI	EI	ST	T#	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V									
L	RL	U	EU	D	VD	TP	C4	C5	C6	C7	TOTAL	VOLUME	MMBF	ASPECT	V00	E	ELEV	P	MIN	MAX	NO	IR	WH	T	I									
CU	T#																																	
732	2001	3	TP	47	0	0	0	0	0	0	47	1,174.00	WEST	MO	3	11	20	M	25	CMM	1	3	78	SEC	N	HE	SW	FH, RS, R&W, 2-SW						
732	2002	3	TP	2	9	0	0	0	0	0	11	332.00	SOUTH	MO	2	9	10	H	330	CCS	3	4	75	FIW	N	RS	CC	PB, PLANT(RC&YC), SS, CC						
732	2002	3	TP	1	8	0	0	0	0	0	9	276.00	SOUTH	MO	2	9	9	H	330	CCS	3	4	75	FIW	N	RS	CC	PB, PLANT(RC&YC), SS, CC						
732	2002	3	TP	3	4	0	0	0	0	0	7	200.00	SOUTH	MO	2	10	10	H	330	CCS	3	4	75	FIW	N	RS	CC	RS, TMPCT, CC						
2002				6	21	0	0	0	0	0	27	808.00																						
732	2003	3	TP	0	12	0	0	0	0	0	12	376.00	EAST	MO	2	11	12	H	780	CCD	2	1	100	FW	N	RS	CC	RS, CC						
732	2003	3	TP	0	28	0	0	0	0	0	28	878.00	EAST	MO	2	11	15	M	780	CCD	2	1	100	FW	N	SL	CC	PLANT(YC), SS, CT, SW						
2003				0	40	0	0	0	0	0	40	1254.00																						
732	2004	3	TP	0	30	0	0	0	0	0	30	941.00	WEST	MO	2	15	15	M	820DE	CCS	2	1	81	FNW	N	RS	CC	RS, R&W, CC						
732	2005	3	TP	10	10	0	0	0	0	0	20	563.00	WEST	MO	2	12	20	H	528E	WHS	3	2	83	FNW	N	RS	CC	RS, CC						
732	2005	3	TP	3	4	0	0	0	0	0	7	200.00	WEST	MO	3	20	20	H	528E	WHS	3	4	85	FNW	N	RS	CC	RS, CC						
732	2005	3	TP	1	12	0	0	0	0	0	13	402.00	WEST	MO	3	20	20	H	528E	WHS	3	4	85	FNW	N	RS	CC	RS, CC						
732	2005	3	TP	0	9	0	0	0	0	0	9	283.00	WEST	MO	3	20	20	H	528E	WHS	3	4	85	FNW	N	RS	CC	RS, CC						
2005				14	35	0	0	0	0	0	49	1448.00																						
732	2006	3	TP	24	11	0	0	0	0	0	35	945.00	NORTH	MO	3	10	15	H	35E	WHS	3	1	90	FIW	N	SL	CC	RS, TMPCT, CC						
732	2006	3	TP	0	13	0	0	0	0	0	13	408.00	NORTH	MO	3	9	15	H	35E	WHS	3	1	90	FIW	N	RS	CC	RS, TMPCT, CC						
2006				24	24	0	0	0	0	0	48	1353.00																						
732	2007	3	TP	0	4	0	0	0	0	0	4	125.00	NORTH	MO	3	4	10	M	35E	WHS	3	1	90	FIW	N	RS	CC	RS, TMPCT, CC						
733	3001	3	ML	4	16	0	0	0	0	0	20	602.00	SOUTH	MO	3	15	20	H	86CD	NME	1	3	69	SEC	N	HE	CC	RS, CC						
733	3002	3	ML	0	27	0	0	0	0	0	27	847.00	SOUTH	MO	2	3	5	H	33E	CCS	3	4	75	FIW	N	HE	SMD	FH, RS, R&W, 2-SW						
733	3003	3	ML	35	71	0	0	0	0	0	106	3,101.00	SOUTH	MO	3	15	20	H	29EF	WHS	1	4	77	FNW	N	HE	CC	RS, R&W, CC						
733	3004	3	ML	0	33	0	0	0	0	0	33	1,035.00	SOUTH	MM	3	2	4	H	528E	WHS	3	4	85	FNW	N	SL	CC	RS, WLPCT, CC						
733	3004	3	ML	0	3	7	0	0	0	0	10	382.00	SOUTH	MM	3	2	2	H	528E	WHS	3	4	85	FNW	N	HL	CC	RS, WLPCT, CC						
733	3004	3	ML	1	19	0	0	0	0	0	20	622.00	WEST	MM	4	8	10	H	528F	WHS	3	4	85	FNW	N	RS	CC	RS, TMPCT, CC						
733	3004	3	ML	7	10	0	0	0	0	0	17	488.00	WEST	MM	4	4	8	H	528F	WHS	3	4	85	FNW	N	RS	CC	RS, WLPCT, CC						
733	3004	3	ML	5	12	0	0	0	0	0	17	501.00	WEST	PR	3	6	8	H	528F	WHS	3	4	85	FNW	N	SL	CC	RS, WLPCT, CC						
733	3004	3	ML	0	19	0	0	0	0	0	19	596.00	WEST	PR	4	4	6	H	528F	WHS	3	4	85	FNW	N	RS	CC	RS, WLPCT, CC						
733	3004	3	TP	9	20	0	0	0	0	0	29	851.00	WEST	MM	4	6	10	H	528F	WHS	3	4	85	FNW	N	SL	CC	RS, TMPCT, CC						
3004				22	116	7	0	0	0	0	145	4475.00																						

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SILVICULTURE DIAGNOSIS - ALTERNATIVE #2

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SILVICULTURE DIAGNOSIS - ALTERNATIVE #2

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H AU RN VI EI ST T# VCU

AU RN		VI EI		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L		V L	
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SILVICULTURE DIAGNOSIS - ALTERNATIVE #2

SILVICULTURE DIAGNOSIS - ALTERNATIVE #2																				PAGE 6 OF 25			
H	AU	RN	VI	EI	ST	T#	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
VCU	RL	EU	VD	ML	ML	ML	C4	C5	C6	C7	ACRES	TOTAL	VOLUME	MMBF	ASPECT	VQO	E	ELEV	DW	SMU			
735	5020	3	ML	0	8	0	0	0	0	0	8	251.00	EAST	PR	2	4	4	528D	WHS	2			
735	5020	3	ML	0	5	0	0	0	0	0	5	157.00	EAST	PR	2	3	3	528D	WHS	2			
5020				0	13	0	0	0	0	0	13	408.00											
735	5021	3		3	0	0	0	0	0	0	3	75.00	EAST	PR	1	1	1	24D	CMC	1			
735	5022	3	SV	7	0	0	0	0	0	0	7	175.00	NORTH	PR	2	5	6	54D	WHS	2			
735	5023	3	ML	21	80	0	0	0	0	0	101	3,033.00	EAST	PR	4	7	20	29EF	WHC	1			
736	6001	4	ML	14	0	0	0	0	0	0	14	350.00	SOUTH	PR	2	3	6	3E	WDC	3			
736	6001	4	ML	10	0	0	0	0	0	0	10	250.00	SOUTH	PR	3	4	5	3E	WDC	3			
6001				24	0	0	0	0	0	0	24	600.00											
736	6002	4	ML	9	13	0	0	0	0	0	22	633.00	NORTH	PR	2	3	5	3D	WDC	2			
736	6002	4	ML	1	5	0	0	0	0	0	6	183.00	NORTH	PR	2	2	2	3D	WDC	2			
736	6002	4	ML	3	6	0	0	0	0	0	9	263.00	NORTH	PR	2	2	3	3D	WDC	2			
736	6002	4	ML	6	1	0	0	0	0	0	7	182.00	NORTH	PR	2	2	3	3D	WDC	2			
6002				19	25	0	0	0	0	0	44	1261.00											
736	6003	4	ML	0	45	0	0	0	0	0	45	1,411.00	EAST	PR	3	9	20	4E	CCD	3			
736	6003	4	ML	0	27	0	0	0	0	0	27	847.00	EAST	PR	3	12	15	4E	CCD	3			
6003				0	72	0	0	0	0	0	72	2258.00											
736	6004	4	ML	10	24	0	0	0	0	0	34	1,002.00	SOUTH	PR	3	4	7	4E	CCD	3			
736	6004	4	ML	5	6	0	0	0	0	0	11	312.00	SOUTH	PR	3	4	5	3E	WDC	3			
736	6004	4	ML	4	0	0	0	0	0	0	4	100.00	SOUTH	PR	3	4	4	3E	WDC	3			
736	6004	4	ML	2	13	0	0	0	0	0	15	458.00	SOUTH	PR	3	3	4	3E	WDC	3			
736	6004	4	MLH	0	14	0	0	0	0	0	14	439.00	SOUTH	PR	2	2	3	24D	CMC	1			
6004				21	57	0	0	0	0	0	78	2311.00											
736	6005	4	ML	0	8	0	0	0	0	0	8	251.00	SOUTH	PR	3	9	9	3E	WDC	3			
736	6005	4	ML	0	16	0	0	0	0	0	16	502.00	SOUTH	PR	3	5	8	3E	WDC	3			
6005				0	24	0	0	0	0	0	24	753.00											

SILVICULTURE DIAGNOSIS - ALTERNATIVE #2

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SILVICULTURE DIAGNOSIS - ALTERNATIVE #2

SILVICULTURE DIAGNOSIS - ALTERNATIVE #2																																	PAGE 21 OF 25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
H	VCU	T#	L RL	U EU	D VD	V L	V L	V L	V L	V L	C4	C5	C6	C7	TOTAL	VOLUME	MMBF	ASPECT	VQO	E	P	MIN	MAX	NO	SMU	ECO	I	M	C	G	EX	HAB	RT	PH	LE	M	R	I	SN	FW	N	HE	SW	FH,RS,R&W,2-SW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
739	9015	3	ML	19	0	0	0	0	0	0	19	474.00	WEST	MO	2	15	20	M	4D	CMB	2	1	93	FW	N	HE	SW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

H		SILVICULTURE DIAGNOSIS - ALTERNATIVE #2															PAGE 22 OF 25																																								
VCU	T#	L	U	D	RL	EU	ST	VI	RN	AU	V	C4	L	C5	V	C6	L	V	C7	L	TOTAL	VOLUME	MMBF	ASPECT	VQO	E	P	MIN	MAX	NO	IR	WH	T	S	L	O	P	ECO	M	C	I	G	EX	HAB	AA	OT	PH	LE	M	I	R	HM	AE	RT	PROPOSED	FUTURE	MANAGEMENT
739	9024	3	TP	0	3	2	0	5	177.00	WEST	MM	1	15	15	M	53D	WHS	2	1	71	FNW	N	HL	CC	RS, CC																																
739	9024	3	TP	1	7	8	0	16	573.00	WEST	MM	2	15	15	M	53D	WHS	2	1	83	FNW	N	RS	CC	RS, CC																																
739	9024	3	TP	0	4	3	0	7	249.00	WEST	MM	2	12	15	M	53D	WHS	2	1	100	FNW	N	HL	CC	RS, TMPCT, CC																																
739	9024	3	TP	0	0	3	0	3	123.00	WEST	MM	2	15	15	M	53D	WHS	2	1	100	FNW	N	HL	CC	RS, TMPCT, CC																																
9024		1	14	16	0	31	1122.00																																																		
739	9025	3	TP	9	2	0	0	11	287.00	WEST	MM	3	11	12	M	53E	WHS	3	1	100	FNW	N	RS	CC	RS, TMPCT, CC																																
739	9025	3	TP	14	0	0	0	14	350.00	WEST	MM	4	0	15	M	53F	MHC	3	1	100	FNW	N	RS	CC	RS, CC																																
739	9025	3	TP	7	3	0	0	10	270.00	WEST	MM	3	9	10	M	53E	WHS	3	1	100	FNW	N	HL	CC	RS, TMPCT, CC																																
9025		30	5	0	0	35	907.00																																																		
739	9026	3	TP	14	1	0	0	15	382.00	WEST	MM	3	0	15	M	53E	WHS	3	1	100	FNW	N	RS	CC	RS, TMPCT, CC																																
739	9026	3	TP	13	0	0	0	13	325.00	WEST	MM	3	0	15	M	53E	WHS	3	1	100	FNW	N	RS	CC	RS, TMPCT, CC																																
739	9026	3	TP	10	0	0	0	10	250.00	WEST	MM	3	15	15	M	53E	WHS	3	1	100	FNW	N	RS	CC	RS, TMPCT, CC																																
9026		37	1	0	0	38	957.00																																																		
739	9027	3	TP	0	25	0	0	25	784.00	WEST	MM	2	6	8	M	18D	CCD	3	1	90	FW	N	RS	CC	RS, R&W, CC																																
739	9027	3	TP	5	13	0	0	18	532.00	WEST	MM	2	8	11	M	53D	WHS	2	1	83	FNW	N	RS	CC	RS, R&W, CC																																
739	9027	3	TP	5	5	0	0	10	282.00	WEST	MM	1	8	9	M	10	SSR	1	1	100	FNW	Y	RS	CC	PLANT(S), SS, CC																																
739	9027	3	TP	5	5	0	0	10	282.00	WEST	MM	3	10	10	M	10	SSR	1	3	94	FNW	Y	RS	CC	PLANT(S), SS, CC																																
9027		15	48	0	0	63	1880.00																																																		
739	9028	3	TP	0	23	0	0	23	722.00	WEST	MM	3	2	4	H	10	SSR	1	1	98	FNW	Y	HL	CC	PLANT(S), SS, CC																																
739	9029	3	TP	0	30	0	0	30	941.00	NORTH	MM	2	3	7	H	10	SSR	1	1	97	FNW	Y	SL	CC	PLANT(S), SS, CC																																
739	9029	3	TP	5	0	0	0	5	124.00	NORTH	MM	2	2	8	M	4D	CMB	2	1	70	FW	N	RS	CC	RS, R&W, CC																																
739	9029	3	TP	6	6	0	0	12	338.00	NORTH	MM	2	9	9	M	3E	WDC	3	1	83	FNW	N	RS	CC	RS, R&W, CC																																
739	9029	3	TP	2	2	0	0	4	112.00	EAST	MM	2	2	8	M	4D	CMB	2	1	70	FW	N	RS	CC	RS, R&W, CC																																
739	9029	3	TP	0	6	0	0	6	188.00	EAST	MM	3	11	11	M	11E	WHC	3	1	100	FNW	N	RS	CC	RS, TMPCT, CC																																
739	9029	3	TP	9	5	0	0	14	382.00	EAST	MM	2	9	11	M	4D	CMB	2	1	75	FW	N	HL	CC	RS, CC																																
739	9029	3	TP	3	5	0	0	8	232.00	EAST	MM	3	0	15	M	11E	WHC	3	1	87	FNW	N	RS	CC	RS, R&W, CC																																
739	9029	3	TP	2	16	0	0	18	551.00	EAST	MM	3	11	15	M	11E	WHC	3	1	91	FNW	N	RS	CC	RS, R&W, CC																																
739	9029	3	TP	4	2	0	0	6	163.00	EAST	MM	2	0	0	M	4D	CMB	2	1	83	FW	N	RS	CC	RS, R&W, CC																																
9029		31	72	0	0	103	3031.00																																																		
739	9030	3	TP	0	13	0	0	13	408.00	NORTH	MM	4	9	9	H	29EF	WHC	1	5	65	FNW	N	RS	CC	RS, TMPCT, CC																																
739	9030	3	TP	0	10	0	0	10	314.00	NORTH	MM	4	15	15	H	29EF	WHC	1	5	65	FNW	N	RS	CC	RS, TMPCT, CC																																
739	9030	3	TP	7	27	0	0	34	1,022.00	WEST	MM	3	0	20	H	29EF	WHC	1	4	65	FNW	N	HE	CC	RS, R&W, CC																																
9030		7	50	0	0	57	1744.00																																																		

NORTH REVILLA DRAFT EIS

SILVICULTURE DIAGNOSIS - ALTERNATIVE #2

[illegible]

SILVICULTURE DIAGNOSIS - ALTERNATIVE #3

RN	VI	L RL	U EU	D VD	V	V	V	V	TOTAL	VOLUME	ASPECT	VQO	S L	P O	MIN	MAX	T WH	I SN	R I	M LE	H AE	
					L C4	L C5	L C6	L C7														ELEV
733 3020	3 ML	1	19	0	0	0	0	20	622.00	WEST	MM	4	8	10 H	528F	WHS	3	4	85 FNW	N	RS	CC RS,TMPCT,CC
733 3020	3 ML	7	10	0	0	0	0	17	488.00	WEST	MM	4	4	8 H	528F	WHS	3	4	85 FNW	N	RS	CC RS,WLPCT,CC
733 3020	3 TP	9	20	0	0	0	0	29	851.00	WEST	MM	4	6	10 H	528F	WHS	3	4	85 FNW	N	SL	CC RS,TMPCT,CC
3020		17	49	0	0	0	0	66	1,961.00													
733 3021	3 ML	0	23	0	0	0	0	23	722.00	SOUTH	PR	3	2	5 H	528E	WHS	3	4	85 FNW	N	SL	CC RS,WLPCT,CC
733 3021	3 ML	0	33	0	0	0	0	33	1,035.00	SOUTH	MM	3	2	4 H	528E	WHS	3	4	85 FNW	N	SL	CC RS,WLPCT,CC
733 3021	3 ML	0	3	7	0	10	382.00	SOUTH	MM	3	2	2 H	528E	WHS	3	4	85 FNW	N	HL	CC RS,WLPCT,CC		
3021		0	59	7	0	66	2,139.00															
733 3022	3 TP	35	1	0	0	36	906.00	SOUTH	MM	2	10	15 H	19D	WHC	2	1	65 FW	N	SL	CC RS,TMPCT,CC		
733 3022	3 TP	10	30	0	0	40	1,190.00	SOUTH	MM	2	12	20 H	29EF	WHC	1	2	66 FNW	N	SL	CC RS,TMPCT,CC		
3022		45	31	0	0	76	2,096.00															
740 4006	3 ML	19	0	3	0	22	597.00	SOUTH	PR	4	20	30 H	29EF	WHC	1	4	64 FNW	N	RS	CC RS,CC		
740 4006	3 ML	34	0	2	0	36	932.00	SOUTH	PR	3	15	30 H	29EF	WHC	1	2	64 FNW	N	RS	CC RS,R&W,CC		
4006		53	0	5	0	58	1,529.00															
735 5005	3 ML	0	4	0	0	4	125.00	NORTH	PR	2	9	9 H	528D	WHS	2	4	85 FNW	N	HL	CC RS,TMPCT,CC		
735 5005	3 ML	0	11	0	0	11	345.00	NORTH	PR	2	9	9 H	528D	WHS	2	4	85 FNW	N	HL	CC RS,TMPCT,CC		
5005		0	15	0	0	15	470.00															
735 5008	3 SV	0	22	0	0	22	690.00	WEST	PR	2	7	11 H	528D	WHS	2	4	85 FNW	N	RS	CC RS,TMPCT,CC		
735 5008	3 ML	0	40	0	0	40	1,254.00	WEST	PR	1	6	10 H	28	CCS	1	2	81 FNW	N	SL	CC PB,PLANT(RC&YC),SS		
5008		0	62	0	0	62	1,944.00															
735 5022	3 SV	7	0	0	0	7	175.00	NORTH	PR	2	5	6 H	540	WHS	2	4	90 FNW	N	HL	CC RS,TMPCT,CC		
735 5024	3 SV	6	33	7	0	46	1,472.00	WEST	PR	3	5	9 H	29EF	WHC	1	3	72 FNW	N	SL	CC RS,R&W,CC		
735 5024	3 SV	0	0	21	0	21	861.00	WEST	PR	3	6	9 H	550D	CCD	3	2	69 FW	N	RS	CC RS,CC		
5024		6	33	28	0	67	2,333.00															

SILVICULTURE DIAGNOSIS - ALTERNATIVE #3

RN	VI	EI	L RL	U EU	D VD	V C4	V L C5	V O C6	V O C7	TOTAL ACRES	VOLUME MMBF	ASPECT	S VQO E	L P MIN ELEV	T WH IR MAX NO DW	I SN ID TE WET HAB RB GH	R I PH AA OT RT VH	HM AE	PROPOSED FUTURE MANAGEMENT	
VCU T#																				
736 6028	4 ML		14	12	0	0	26	726.00	SOUTH	PR 3	3	4 H 6	CCS	2	2	96 FNW N	N HL	CC PB, PLANT(RCC), SS, CC		
736 6028	4 ML		16	6	0	0	22	587.00	SOUTH	PR 2	2	3 H 3D	WDC	2	1	100 FNW N	N HL	CC RS, WLPCT, CC		
6028			30	18	0	0	48	1,313.00												
736 6029	4 ML		21	7	0	0	28	745.00	SOUTH	PR 2	4	6 H 75D	WHS	2	4	85 FNW N	N RS	CC RS, WLPCT, CC		
736 6029	4 TP		23	0	0	0	23	574.00	SOUTH	PR 2	3	6 H 75D	WHS	2	4	85 FNW N	N RS	CC RS, WLPCT, CC		
6029			44	7	0	0	51	1,319.00												
736 6030	4 TP		42	0	0	0	42	1,048.00	SOUTH	MO 1	8	15 M 28	CCS	1	1	80 FNW N	N SL	CC RS, TMPCT, CC		
736 6030	4 TP		14	0	0	0	14	350.00	SOUTH	MO 1	12	15 M 28	CCS	1	1	76 FNW N	N RS	CC PLANT(YC), SS, CT, SW		
6030			56	0	0	0	56	1,398.00												
736 6031	4 TP		27	0	0	0	27	674.00	EAST	MO 1	12	15 M 28	CCS	1	1	80 FNW N	N RS	CC PLANT(YC), SS, CT, SW		
736 6031	4 TP		16	24	0	0	40	1,152.00	EAST	MO 1	10	15 M 28	CCS	1	1	80 FNW N	N SL	CC PLANT(YC), SS, CT, SW		
736 6031	4 TP		0	32	0	0	32	1,003.00	EAST	MO 1	8	15 M 28	CCS	1	1	80 FNW N	N SL	CC RS, TMPCT, CC		
736 6031	4 TP		28	0	0	0	28	700.00	EAST	MO 2	12	15 M 18D	CCD	3	1	73 FW N	N SL	CC PLANT(YC), SS, CT, SW		
6031			71	56	0	0	127	3,529.00												
736 6032	4 TP		13	9	0	0	22	607.00	SOUTH	MM 1	4	5 H 20C	CMB	1	2	70 FW N	N HL	CC RS, CC		
736 6032	4 TP		0	34	0	0	34	1,066.00	SOUTH	MM 2	5	7 H 28	CCS	1	4	84 FNW N	N HL	CC RS, WLPCT, CC		
736 6032	4 TP		0	9	0	0	9	283.00	SOUTH	MM 1	5	6 H 20C	CMB	1	1	55 FW N	N HL	CC RS, CC		
6032			13	52	0	0	65	1,956.00												
737 7003	4 ML		0	18	0	0	18	564.00	WEST	PR 2	4	4 H 63D	CCS	2	2	65 FI N	N SL	CC RS, WLPCT, CC		
737 7003	4 TP		0	19	0	0	19	596.00	WEST	PR 1	4	4 H 19D	WHC	2	1	52 FW N	N SL	CC RS, WLPCT, CC		
7003			0	37	0	0	37	1,160.00												
737 7015	4 TP		0	13	0	0	13	408.00	NORTH	MM 1	4	5 H 51C	WHS	1	1	60 FW N	N HL	CC RS, TMPCT, CC		
737 7016	4 ML		0	9	0	0	9	283.00	WEST	MM 2	11	11 H 30D	WHM	3	1	100 FNW N	N RS	CC RS, TMPCT, CC		
737 7016	4 ML		0	9	0	0	9	283.00	WEST	MM 2	11	11 H 30D	WHM	3	1	100 FNW N	N HL	CC RS, TMPCT, CC		
7016			0	18	0	0	18	566.00												

SILVICULTURE DIAGNOSIS - ALTERNATIVE #3

[illegible]

SILVICULTURE DIAGNOSIS - ALTERNATIVE #3

H AU RN VI EI ST VCU T#	L RL U EU D VD	V O L C4	V O L C5	V O L C6	V O L C7	TOTAL ACRES	VOLUME MMBF	ASPECT	V00 E	S L O P E	MIN ELEV	MAX ELEV	T WH IR NO DW	SMU CODE	ECO CODE	M I G	M C G	I SN TE EX	J WET HAB	R PH AA RB	M LE OT GH	HM AE RT VH	PROPOSED FUTURE MANAGEMENT
737 7047	4 TP	0	8	0	0	8	251.00	EAST	MM	1	5	6	H 24AC	CMC		1	1	60	SE	N	HL	CC	RS, CC
737 7047	4 TP	0	6	0	0	6	188.00	EAST	MM	1	5	5	H 25	CMM		1	1	45	SEC	N	HL	CC	RS, CC
737 7047	4 TP	0	7	0	0	7	220.00	EAST	MM	4	5	5	H 29EF	WDC		1	5	65	FNW	N	HL	CC	RS, TMPCT, CC
737 7047	4 TP	0	6	0	0	6	188.00	EAST	MM	2	4	5	H 2D	WDC		2	1	100	FNW	N	HL	CC	RS, TMPCT, CC
737 7047	4 TP	0	6	0	0	6	188.00	EAST	MM	2	5	5	H 2D	WDC		2	1	100	FNW	N	HL	CC	RS, TMPCT, CC
737 7047	4 TP	0	17	0	0	17	534.00	EAST	MM	2	3	4	H 2D	WDC		2	2	75	FNW	N	HL	CC	RS, CC
7047		0	50	0	0	50	1,569.00																
737 7048	4 TP	0	5	2	0	7	240.00	WEST	MM	3	12	12	H 25	CMM		1	1	77	SEC	N	HL	CC	RS, CC
737 7048	4 TP	0	6	20	0	26	1,009.00	WEST	MM	3	12	15	M 18D	CCD		3	1	91	FW	N	HL	CC	PLANT(YC), SS, CT, SW
7048		0	11	22	0	33	1,249.00																
737 7049	4 TP	0	0	20	0	20	821.00	NORTH	MM	2	12	15	M 18D	CCD		3	1	83	FW	N	RS	CC	PLANT(YC), SS, CT, SW
737 7050	4 ML	0	8	0	0	8	251.00	SOUTH	MM	3	15	15	H 1E	WDC		3	1	100	FNW	N	HL	CC	RS, TMPCT, CC
737 7050	4 TP	9	15	0	0	24	695.00	SOUTH	MM	3	10	15	M 4D	CMB		2	1	82	FW	N	SL	CC	PLANT(YC), SS, CT, SW
737 7050	4 TP	0	16	0	0	16	502.00	SOUTH	MM	3	15	15	H 19E	WDC		3	1	73	FW	N	RS	CC	RS, CC
737 7050	4 TP	0	7	0	0	7	220.00	SOUTH	MM	3	15	15	M 4E	CCD		3	1	70	FW	N	RS	CC	RS, CC
7050		9	46	0	0	55	1,668.00																
738 8002	4 TP	0	4	0	0	4	125.00	WEST	PR	3	4	5	H 3E	WDC		3	1	100	FNW	N	HL	CC	RS, WLPCT, CC
738 8003	4 TP	0	4	0	0	4	125.00	SOUTH	PR	3	7	7	H 3E	WDC		3	1	100	FNW	N	HL	CC	RS, WLPCT, CC
738 8003	4 TP	0	12	0	0	12	376.00	SOUTH	PR	3	7	8	H 3E	WDC		3	1	100	FNW	N	HL	CC	RS, WLPCT, CC
738 8003	4 TP	0	17	0	0	17	534.00	SOUTH	PR	3	4	7	H 3E	WDC		3	1	100	FNW	N	RS	CC	RS, WLPCT, CC
738 8003	4 TP	0	20	0	0	20	627.00	SOUTH	PR	3	7	9	H 3E	WDC		3	1	100	FNW	N	RS	CC	RS, TMPCT, CC
738 8003	4 TP	0	4	0	0	4	125.00	SOUTH	PR	3	7	7	H 3E	WDC		3	1	100	FNW	N	HL	CC	RS, WLPCT, CC
738 8003	4 TP	0	11	0	0	11	345.00	SOUTH	PR	3	5	6	H 3E	WDC		3	1	100	FNW	N	RS	CC	RS, WLPCT, CC
8003		0	68	0	0	68	2,132.00																
738 8009	4 TP	12	0	0	0	12	299.00	SOUTH	MO	3	4	5	M 3E	WDC		3	1	100	FNW	N	RS	CC	RS, WLPCT, CC
738 8009	4 TP	14	0	0	0	14	350.00	SOUTH	MO	3	4	6	M 3E	WDC		3	1	100	FNW	N	RS	CC	RS, WLPCT, CC
738 8009	4 TP	14	4	2	0	20	558.00	SOUTH	MO	3	4	7	M 3E	WDC		3	1	100	FNW	N	RS	CC	RS, WLPCT, CC
8009		40	4	2	0	46	1,207.00																

H			SILVICULTURE DIAGNOSIS - ALTERNATIVE #3																										PAGE 9 OF 18														
VCU T#	D	VD	L	RL	U	EU	V	O	L	V	V	C5	C6	C7	TOTAL	VOLUME	ASPECT	VQO	E	MIN	MAX	NO	SMU	ECO	I	G	C	M	TE	WET	AA	PH	I	R	M	LE	AE	HM	RT	VH	PROPOSED	FUTURE MANAGEMENT	
738 8011	4	TP	10	5	0	0	0	0	0	15	407.00	NORTH	MO	1	2	2	M	24AC	CMC	1	1	51	SE	N	RS	CC	RS,CC																
738 8011	4	TP	0	8	0	0	0	0	0	8	251.00	NORTH	MO	1	2	2	M	24AC	CMC	1	1	50	SE	N	HL	CC	RS,CC																
738 8011	4	TP	4	2	0	0	0	0	0	6	163.00	NORTH	MO	1	3	3	M	24AC	CMC	1	1	60	SE	N	HL	CC	RS,CC																
738 8011	4	TP	7	3	0	0	0	0	0	10	270.00	NORTH	MO	1	2	3	M	1C	WDC	1	1	89	FNW	N	HL	CC	RS,CC																
738 8011	4	TP	3	1	0	0	0	0	0	4	107.00	NORTH	MO	1	2	2	M	24AC	CMC	1	1	60	SE	N	HL	CC	RS,CC																
738 8011	4	TP	19	0	0	0	0	0	0	19	474.00	NORTH	MO	1	2	3	M	24AC	CMC	1	1	60	SE	N	RS	CC	RS,CC																
8011			43	19	0	0	0	0	0	62	1,672.00																																
738 8014	4	TP	6	6	0	0	0	0	0	12	338.00	EAST	MO	2	10	10	M	550D	CCD	3	1	70	FW	N	HL	CC	RS,CC																
738 8014	4	TP	12	2	0	0	0	0	0	14	362.00	EAST	MO	2	10	11	M	550D	CCD	3	1	70	FW	N	HL	CC	RS,CC																
8014			18	8	0	0	0	0	0	26	700.00																																
738 8015	4	TP	4	0	0	0	0	0	0	4	100.00	WEST	MM	2	8	9	H	1D	WDC	2	1	94	FNW	N	HL	CC	RS,CC																
738 8015	4	TP	11	0	0	0	0	0	0	11	275.00	WEST	MM	2	8	9	M	1D	WDC	2	1	94	FNW	N	HL	CC	RS,CC																
738 8015	4	TP	4	0	0	0	0	0	0	4	100.00	WEST	MM	2	9	9	M	331D	WDC	3	1	90	FIC	N	HL	CC	RS,IMPCT,CC																
8015			19	0	0	0	0	0	0	19	475.00																																
738 8016	4	TP	0	25	0	0	0	0	0	25	784.00	NORTH	MO	3	4	7	M	331C	WDC	2	1	95	FIC	N	HL	CC	RS,CC																
738 8016	4	TP	1	14	0	0	0	0	0	15	464.00	NORTH	MO	2	5	7	M	331D	WDC	3	1	90	FIC	N	HL	CC	RS,IMPCT,CC																
8016			1	39	0	0	0	0	0	40	1,248.00																																
738 8025	4	TP	3	10	0	0	0	0	0	13	388.00	EAST	MO	4	15	15	H	528F	WHS	3	4	85	FNW	N	RS	CC	RS,IMPCT,CC																
738 8025	4	TP	4	9	0	0	0	0	0	13	383.00	EAST	MO	4	12	15	H	528F	WHS	3	4	85	FNW	N	SL	CC	RS,IMPCT,CC																
738 8025	4	TP	0	17	0	0	0	0	0	17	534.00	EAST	MO	4	15	15	H	528F	WHS	3	4	85	FNW	N	RS	CC	RS,IMPCT,CC																
8025			7	36	0	0	0	0	0	43	1,305.00																																
738 8030	4	ML	0	14	0	0	0	0	0	14	439.00	SOUTH	MO	4	4	5	H	528F	WHS	3	4	86	FNW	N	RS	CC	RS,IMPCT,CC																
738 8045	4	TP	10	0	0	0	0	0	0	10	250.00	NORTH	PR	1	2	2	H	24AC	CMC	1	1	60	SE	N	HL	CC	RS,CC																
738 8056	4	ML	12	0	0	0	0	0	0	12	299.00	WEST	PR	3	2	3	H	3E	WDC	3	1	100	FNW	N	HL	CC	RS,IMPCT,CC																
738 8056	4	ML	15	0	0	0	0	0	0	15	375.00	WEST	PR	2	3	5	H	4D	CMB	2	1	70	FW	N	HL	CC	RS,CC																
738 8056	4	ML	37	0	0	0	0	0	0	37	924.00	WEST	PR	1	3	5	H	24AC	CMC	1	1	65	SE	N	HL	CC	RS,CC																
8056			64	0	0	0	0	0	0	64	1,598.00																																

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H		AU		RN		VI		EI		ST		VCU T#		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V		V	

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VCU T#	L RL U EU D VD	V O L C4	V O L C5	V O L C6	V O L C7	TOTAL ACRES	VOLUME MMBF	ASPECT	VQO	E	P	S L O	MIN ELEV	MAX ELEV	T WH IR NO DW	SMU	ECO CODE	M I	M C	I G	SN ID	I PH AA	R LE OT	M AE GH	HM RT VH	PROPOSED		FUTURE MANAGEMENT	
																										RS	CC	RS	CC
738 8071	4 TP	5	6	0	0	11	312.00	NORTH	MO	3	6	7 M	2E				WDC	2	1	100	FNW	N	HL	CC	CC	RS, TMPCT, CC			
738 8071	4 TP	3	3	0	0	6	169.00	NORTH	MO	3	6	6 M	2E				WDC	2	1	100	FNW	N	HL	CC	CC	RS, TMPCT, CC			
738 8071	4 TP	2	1	0	0	3	81.00	NORTH	MO	3	6	7 M	2E				WDC	2	1	100	FNW	N	HL	CC	CC	RS, CC			
738 8071	4 TP	2	6	0	0	8	238.00	NORTH	MO	3	8	9 M	2E				WDC	2	1	100	FNW	N	HL	CC	CC	RS, TMPCT, CC			
738 8071	4 TP	3	6	0	0	9	263.00	NORTH	MO	3	7	7 M	2E				WDC	2	1	94	FNW	N	HL	CC	CC	RS, CC			
738 8071	4 TP	2	2	0	0	4	112.00	NORTH	MO	2	7	7 M	18D				CCD	3	1	80	FW	N	HL	CC	CC	RS, CC			
8071		17	24	0	0	41	1,175.00																						
738 8072	4 TP	6	0	0	0	6	150.00	EAST	MO	1	6	6 M	331C				WHC	2	1	90	FIC	N	HL	CC	CC	RS, TMPCT, CC			
738 8072	4 TP	9	0	0	0	9	224.00	EAST	MO	1	8	9 M	331C				WHC	2	1	90	FIC	N	HL	CC	CC	RS, TMPCT, CC			
738 8072	4 TP	11	0	0	0	11	275.00	EAST	MO	1	8	8 M	331C				WHC	2	1	90	FIC	N	HL	CC	CC	RS, TMPCT, CC			
738 8072	4 TP	13	0	0	0	13	325.00	EAST	MO	1	9	9 M	331D				WHC	3	1	62	FIC	N	HL	CC	CC	RS, CC			
8072		39	0	0	0	39	974.00																						
738 8073	4 TP	0	28	0	0	28	878.00	NORTH	MO	4	5	8 H	4D				CMB	2	1	70	FW	N	SL	CC	CC	RS, R&W, CC			
738 8074	4 TP	0	19	0	0	19	596.00	NORTH	MO	4	7	10 H	4F				CCD	4	1	70	FW	N	RS	CC	CC	RS, R&W, CC			
738 8074	4 TP	0	12	0	0	12	376.00	NORTH	MO	4	7	9 H	4F				CCD	4	1	70	FW	N	RS	CC	CC	RS, R&W, CC			
738 8074	4 TP	0	14	0	0	14	439.00	NORTH	MO	4	9	10 H	4F				CCD	4	1	70	FW	N	RS	CC	CC	RS, R&W, CC			
8074		0	45	0	0	45	1,411.00																						
738 8075	4 TP	0	10	0	0	10	314.00	EAST	MO	3	8	8 H	1E				WDC	3	1	100	FNW	N	HL	CC	CC	RS, TMPCT, CC			
738 8075	4 TP	0	10	0	0	10	314.00	EAST	MO	3	10	10 H	1E				WDC	3	1	100	FNW	N	HL	CC	CC	RS, TMPCT, CC			
738 8075	4 TP	0	10	12	0	22	806.00	EAST	MO	2	7	8 H	86CD				NME	1	1	96	SEC	N	HL	CC	CC	RS, CC			
738 8075	4 TP	5	0	9	0	14	494.00	EAST	MO	2	7	9 H	86CD				NME	1	1	79	SEC	N	RS	CC	CC	RS, CC			
8075		5	30	21	0	56	1,928.00																						
738 8076	4 TP	11	3	0	0	14	370.00	EAST	MO	3	15	20 H	1E				WDC	3	1	89	FNW	N	RS	CC	CC	RS, R&W, CC			
738 8076	4 TP	23	6	0	0	29	762.00	EAST	MO	3	9	12 H	1E				WDC	3	1	100	FNW	N	RS	CC	CC	RS, TMPCT, CC			
738 8076	4 TP	15	1	0	0	16	407.00	EAST	MO	2	5	7 H	25				CMM	1	1	86	SEC	N	RS	CC	CC	RS, R&W, CC			
738 8076	4 TP	0	26	0	0	26	815.00	EAST	MO	3	9	20 H	1E				WDC	3	1	95	FNW	N	RS	CC	CC	RS, R&W, CC			
738 8076	4 TP	2	20	0	0	22	677.00	EAST	MO	2	5	7 H	86CD				NME	1	1	93	SEC	N	RS	CC	CC	RS, R&W, CC			
738 8076	4 TP	0	24	0	0	24	752.00	EAST	MO	3	9	15 H	1E				WDC	3	1	87	FNW	N	RS	CC	CC	RS, R&W, CC			
8076		51	80	0	0	131	3,783.00																						

RN VI EI ST VCU T#	L RL U EU D VD	V O L C4	V O L C5	V O L C6	C7 ACRES	TOTAL	VOLUME			ASPECT	VQO E	S			MIN ELEV	MAX NO DW	T WH IR	I SN ID	R PH LE M AE	PROPOSED			FUTURE MANAGEMENT					
							MMBF	M C T G	ECO CODE			M I	M C T G	WET AA OT						HAB RB GH	RS RT VH	CC RS, CC	CC RS, CC	CC RS, R&W, CC	CC RS, IMPCT, CC	CC RS, CC	CC RS, R&W, CC	CC RS, IMPCT, CC

738 8077	4 TP	3	9	0	0	12	358.00	EAST	MO 4	20	30 H	29EF	WHC	1	5	65 FNW	N	HL	CC	RS, CC		
738 8077	4 TP	0	11	0	0	11	345.00	EAST	MO 4	20	30 H	29EF	WHC	1	5	65 FNW	N	HL	CC	RS, CC		
738 8077	4 TP	0	26	3	0	29	938.00	EAST	MO 4	20	20 H	29EF	WHC	1	2	93 FNW	N	RS	CC	RS, R&W, CC		
738 8077	4 TP	2	5	2	0	9	289.00	EAST	MO 3	15	15 H	1F	WDC	3	1	100 FNW	N	HL	CC	RS, IMPCT, CC		
738 8077	4 TP	3	0	9	0	12	444.00	EAST	MO 4	15	20 H	1E	WDC	3	1	100 FNW	N	SL	CC	RS, CC		

8077		8	51	14	0	73	2,374.00															
738 8078	4 TP	0	10	0	0	10	314.00	EAST	MO 1	2	3 M	24AC	CMC	1	1	60 SE	N	HL	CC	RS, CC		
738 8078	4 TP	0	11	0	0	11	345.00	EAST	MO 1	3	4 M	24AC	CMC	1	1	70 SE	N	HL	CC	RS, CC		
738 8078	4 TP	0	14	0	0	14	439.00	EAST	MO 1	3	4 M	24AC	CMC	1	1	76 SE	N	HL	CC	RS, CC		

8078		0	35	0	0	35	1,098.00															
738 8079	4 TP	0	7	16	0	23	877.00	EAST	MO 2	4	6 M	24AC	CMC	1	1	76 SE	N	HL	CC	RS, CC		
738 8079	4 TP	0	9	0	0	9	283.00	EAST	MO 3	9	9 M	29EF	WHC	1	3	84 FNW	N	RS	CC	RS, R&W, CC		
738 8079	4 TP	0	0	16	0	16	657.00	EAST	MO 3	4	6 M	1E	WDC	3	1	94 FNW	N	RS	CC	RS, R&W, CC		
738 8079	4 TP	7	14	0	0	21	614.00	NORTH	PR 3	10	15 M	1E	WDC	3	1	86 FNW	N	RS	CC	RS, CC		
738 8079	4 TP	1	13	0	0	14	433.00	EAST	MO 3	11	15 M	29EF	WHC	1	4	64 FNW	N	RS	CC	RS, IMPCT, CC		
738 8079	4 TP	0	31	0	0	31	972.00	EAST	MO 4	7	15 M	29EF	WHC	1	4	75 FNW	N	RS	CC	RS, R&W, CC		

8079		8	74	32	0	114	3,836.00															
738 8080	4 TP	0	17	0	0	17	534.00	EAST	PR 3	2	4 M	1E	WDC	3	2	93 FNW	N	RS	CC	RS, CC		
738 8080	4 TP	0	18	4	0	22	728.00	EAST	PR 1	2	4 M	24AC	CMC	1	1	67 SE	N	HL	CC	RS, CC		

8080		0	35	4	0	39	1,262.00															
739 9002	3 ML	0	19	0	0	19	596.00	SOUTH	MO 2	3	5 H	540	WHS	2	4	90 FNW	N	RS	CC	RS, WLPCT, CC		
739 9003	3 ML	13	12	0	0	25	701.00	SOUTH	MO 1	2	4 H	1C	WDC	1	3	81 FNW	N	SL	CC	RS, R&W, CC		
739 9019	3 TP	0	14	0	0	14	439.00	EAST	MO 4	4	6 H	2E	WDC	2	4	85 FNW	N	RS	CC	RS, IMPCT, CC		
739 9019	3 TP	0	13	0	0	13	408.00	EAST	MO 3	5	7 M	2E	WDC	2	1	100 FNW	N	HL	CC	RS, IMPCT, CC		
739 9019	3 TP	0	5	0	0	5	157.00	EAST	MO 3	2	8 H	2E	WDC	2	1	100 FNW	N	RS	CC	RS, IMPCT, CC		
739 9019	3 TP	0	6	0	0	6	188.00	EAST	MO 3	2	8 H	2E	WDC	2	1	100 FNW	N	RS	CC	RS, IMPCT, CC		

9019		0	38	0	0	38	1,192.00															

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VCU T#	L RL U EU D VD	V O L C4	V O L C5	V O L C6	V O L C7	TOTAL ACRES	VOLUME MMBF	ASPECT	VQO	S L O	P E	T			SMU	ECO CODE	I G	I			R I M	PH LE	AA OT	RB GH	HM AE RT VH	PROPOSED FUTURE MANAGEMENT
												MIN	MAX	NO				SN	ID	TE						
739 9021	3 TP	0	15	0	0	15	471.00	SOUTH	PR	2	3	5	M 3D	WDC	2	1	100	FNW	N	HL	CC	RS,WLPCT,CC				
739 9021	3 TP	0	5	0	0	5	157.00	SOUTH	PR	2	4	4	M 3D	WDC	2	1	100	FNW	N	HL	CC	RS,WLPCT,CC				
739 9021	3 TP	4	1	0	0	5	132.00	SOUTH	PR	2	4	4	M 3D	WDC	2	1	100	FNW	N	HL	CC	RS,WLPCT,CC				
9021		4	21	0	0	25	760.00																			
739 9026	3 TP	14	1	0	0	15	382.00	WEST	MM	3	0	15	M 53E	WHS	3	1	100	FNW	N	RS	CC	RS,TMPCT,CC				
739 9026	3 TP	13	0	0	0	13	325.00	WEST	MM	3	0	15	M 53E	WHS	3	1	100	FNW	N	RS	CC	RS,TMPCT,CC				
739 9026	3 TP	10	0	0	0	10	250.00	WEST	MM	3	15	15	M 53E	WHS	3	1	100	FNW	N	RS	CC	RS,TMPCT,CC				
9026		37	1	0	0	38	957.00																			
739 9028	3 TP	0	23	0	0	23	722.00	WEST	MM	3	2	4	H 10	SSR	1	1	98	FNW	Y	HL	CC	PLANT(S),SS,CC				
739 9031	3 TP	0	25	2	0	27	867.00	EAST	MM	1	7	9	M 25	CMH	1	1	62	SEC	N	RS	CC	RS,R&W,CC				
739 9031	3 TP	0	12	0	0	12	376.00	EAST	MM	2	8	9	M 18D	CCD	3	2	81	FW	N	RS	CC	RS,R&W,CC				
739 9031	3 TP	0	13	0	0	13	408.00	EAST	MM	3	10	11	M 528E	WHS	3	4	85	FNW	N	RS	CC	RS,TMPCT,CC				
9031		0	50	2	0	52	1,651.00																			
739 9037	3 TP	0	21	0	0	21	659.00	EAST	MM	3	8	10	M 11E	WHC	3	1	100	FNW	N	HL	CC	RS,TMPCT,CC				
739 9040	3 TP	0	7	0	0	7	220.00	WEST	MM	4	7	8	M 3F	WDC	3	1	100	FNW	N	RS	CC	RS,WLPCT,CC				
739 9040	3 TP	3	12	2	0	17	534.00	WEST	MM	4	8	10	M 3F	WDC	3	1	100	FNW	N	RS	CC	RS,TMPCT,CC				
739 9040	3 TP	0	15	1	0	16	512.00	WEST	MM	4	9	10	M 3F	WDC	3	1	100	FNW	N	RS	CC	RS,TMPCT,CC				
9040		3	34	3	0	40	1,266.00																			
739 9041	3 TP	0	5	4	0	9	321.00	NORTH	MM	2	1	2	H 3D	WDC	2	1	100	FNW	N	RS	CC	RS,TMPCT,CC				
739 9041	3 TP	0	6	4	0	10	352.00	NORTH	MM	2	2	2	H 3D	WDC	2	1	100	FNW	N	RS	CC	RS,TMPCT,CC				
9041		0	11	8	0	19	673.00																			
739 9043	3 ML	0	15	0	0	15	471.00	NORTH	MM	3	4	6	H 1E	WDC	3	1	100	FNW	N	HL	CC	RS,TMPCT,CC				
739 9043	3 ML	4	2	0	0	6	163.00	NORTH	MM	3	5	5	H 1E	WDC	3	1	100	FNW	N	HL	CC	RS,TMPCT,CC				
9043		4	17	0	0	21	634.00																			

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SILVICULTURE DIAGNOSIS - ALTERNATIVE #3

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SILVICULTURE DIAGNOSIS - ALTERNATIVE #4

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44 - APPENDIX H

NORTH REVILLA DRAFT EIS

H	SILVICULTURE DIAGNOSIS - ALTERNATIVE #4																							PAGE 1 OF 19									
VCU T#	L RL	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V										
ST	U EU	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L										
EI	D VD	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25										
RN																																	
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AI																																	
ST																																	
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SILVICULTURE DIAGNOSIS - ALTERNATIVE #4

[illegible]

SILVICULTURE DIAGNOSIS - ALTERNATIVE #4

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H AU RN VI EI ST VCU T#	L RL U EU D VD	V O L C4	V O L C5	V O L C6	V O L C7	TOTAL ACRES	VOLUME MMBF	ASPECT	VQO	E	MIN ELEV	MAX ELEV	NO DW	SMU	CODE	M I	M C G	I SN ID TE EX HAB	R I PH AA RB	M LE OT GH	HM AE RT VH	PROPOSED FUTURE MANAGEMENT
735 5051	3 ML	0	4	0	0	4	125.00	NORTH	PR	2	9	9	H 5280	WHS	2	4	85	FNW	N	HL	CC	RS, TMPCT, CC
735 5051	3 ML	0	11	0	0	11	345.00	NORTH	PR	2	9	9	H 5280	WHS	2	4	85	FNW	N	HL	CC	RS, TMPCT, CC
735 5051	3 ML	32	48	0	0	80	2,303.00	NORTH	PR	2	15	30	M 25	CHM	1	3	64	SEC	N	HE	SW	FH, RS, R&W, 2-SW
735 5051	3 SV	0	9	0	0	9	283.00	NORTH	PR	2	11	12	H 540	WHS	2	4	90	FNW	N	RS	CC	RS, TMPCT, CC
735 5051	3 SV	0	18	0	0	18	564.00	NORTH	PR	2	15	20	H 540	WHS	2	4	87	FNW	N	RS	CC	RS, CC
735 5051	3 SV	12	7	0	0	19	519.00	NORTH	PR	3	15	20	H 540	WHS	2	4	82	FNW	N	RS	CC	RS, CC
735 5051	3 SV	5	0	0	0	5	124.00	NORTH	PR	2	15	15	H 540	WHS	2	4	90	FNW	N	RS	CC	RS, TMPCT, CC
5051		49	97	0	0	146	4,263.00															
735 5052	3 SV	1	28	0	0	29	903.00	NORTH	MO	3	8	20	M 33E	CCS	3	4	83	FIW	N	SL	CC	RS, TMPCT, CC
735 5052	3 SV	4	4	0	0	8	226.00	NORTH	MO	2	15	15	H 540	WHS	2	4	90	FNW	N	RS	CC	RS, TMPCT, CC
5052		5	32	0	0	37	1,129.00															
735 5053	3 SV	5	9	0	0	14	407.00	EAST	PR	3	10	10	H 33E	CCS	3	4	80	FIW	N	RS	CC	RS, TMPCT, CC
735 5054	3 SV	2	0	0	0	2	50.00	EAST	PR	3	3	8	H 33E	CCS	3	4	75	FIW	N	HL	CC	RS, TMPCT, CC
735 5054	3 SV	7	4	0	0	11	300.00	EAST	PR	3	6	6	H 33E	CCS	3	4	75	FIW	N	HL	CC	RS, TMPCT, CC
5054		9	4	0	0	13	350.00															
735 5055	3 TP	0	8	0	0	8	251.00	EAST	MO	3	6	6	H 19E	WHC	3	2	76	FW	N	HL	CC	RS, CC
735 5055	3 TP	1	2	0	0	3	88.00	EAST	MO	3	6	6	H 19E	WHC	3	2	76	FW	N	HL	CC	RS, CC
735 5055	3 TP	7	0	0	0	7	175.00	EAST	MO	2	3	3	H 540	WHS	2	4	90	FNW	N	HL	CC	RS, TMPCT, CC
735 5055	3 SV	13	1	0	0	14	356.00	EAST	MO	2	2	4	H 540	WHS	2	4	82	FNW	N	HL	CC	RS, TMPCT, CC
735 5055	3 TP	2	0	0	0	2	50.00	EAST	MO	3	6	6	H 19E	WHC	3	2	76	FW	N	HL	CC	RS, CC
735 5055	3 TP	3	0	0	0	3	75.00	EAST	MO	2	2	6	H 33D	CCS	3	4	75	FIW	N	HL	CC	RS, TMPCT, CC
735 5055	3 TP	0	2	0	0	2	63.00	EAST	MO	3	6	6	H 19E	WHC	3	2	76	FW	N	HL	CC	RS, CC
5055		26	13	0	0	39	1,058.00															
735 5056	3 SV	8	4	0	0	12	326.00	EAST	PR	2	3	5	H 33D	CCS	3	4	75	FIW	N	RS	CC	RS, TMPCT, CC
735 5056	3 SV	6	6	0	0	12	338.00	EAST	PR	2	2	4	H 33D	CCS	3	4	75	FIW	N	RS	CC	RS, TMPCT, CC
735 5056	3 SV	3	1	0	0	4	107.00	EAST	PR	2	2	2	H 33D	CCS	3	4	75	FIW	N	HL	CC	RS, TMPCT, CC
735 5056	3 SV	8	0	0	0	8	200.00	EAST	PR	2	3	3	H 33D	CCS	3	4	75	FIW	N	HL	CC	RS, TMPCT, CC
735 5056	3 SV	4	3	0	0	7	195.00	SOUTH	PR	1	3	3	H 33C	CCS	2	4	75	FIW	N	HL	CC	RS, WLPCT, CC
735 5056	3 SV	0	8	0	0	8	251.00	SOUTH	PR	1	3	3	H 33C	CCS	2	4	75	FIW	N	HL	CC	RS, WLPCT, CC
5056		29	22	0	0	51	1,417.00															

SILVICULTURE DIAGNOSIS - ALTERNATIVE #4																											PAGE 5 OF 19																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
H	AU	RN	VI	EI	ST	VCU T#	L RL	U EU	D VD	V	V	V	V	V	V	L	L	L	L	L	C4	C5	C6	C7	TOTAL	VOLUME	MMBF	ASPECT	VQO E	P	MIN	MAX	T	WH	IR	SMU	ECO	M	C	I	G	EX	HAB	RB	GH	VH	RT	AE	HM	M	LE	OT	PROPOSED	FUTURE MANAGEMENT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
736	6002	4	ML				9	13	0	0	0	22	633.00	NORTH	PR 2	3	5	H 3D	WDC	2	1	89	FNW	N	HL	CC	RS, CC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		

SILVICULTURE DIAGNOSIS - ALTERNATIVE #4

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H AU RN VI EI ST VCU T#	L RL U EU D VD	V L C4	V L C5	V L C6	V L C7	TOTAL ACRES	VOLUME MMBF	ASPECT	V00 ELEV	P ELEV	S MAX ELEV	T WH IR NO DW	SMU CODE	ECO CODE	M I	M C G	I SN ID TE EX	R I PH AA RB	M LE OT GH	HM AE RT VH	PROPOSED FUTURE MANAGEMENT
737 7031	4 TP	0	10	0	0	0	314.00	SOUTH	MO	2	15	15 H 528D	WHS		2	4	85 FNV	N	RS	CC	RS, TMPCT, CC
737 7031	4 TP	0	3	0	0	3	95.00	SOUTH	MO	2	15	15 H 528D	WHS		2	4	85 FNV	N	RS	CC	RS, TMPCT, CC
737 7031	4 TP	0	6	0	0	6	188.00	SOUTH	MO	2	10	16 H 528D	WHS		2	4	85 FNV	N	RS	CC	RS, TMPCT, CC
737 7031	4 TP	1	4	3	0	8	274.00	SOUTH	MO	2	12	15 H 528D	WHS		2	4	85 FNV	N	RS	CC	RS, TMPCT, CC
737 7031	4 TP	0	0	8	0	8	328.00	SOUTH	MO	2	15	15 H 528D	WHS		2	4	85 FNV	N	RS	CC	RS, TMPCT, CC
7031		1	23	11	0	35	1,199.00														
737 7034	4 TP	16	0	0	0	16	399.00	EAST	MO	2	11	15 M 18D	CCD		3	1	80 FW	N	RS	CC	PLANT(YC), SS, CT, SW
737 7034	4 TP	8	0	0	0	8	200.00	EAST	MO	2	9	10 H 18D	CCD		3	1	80 FW	N	RS	CC	RS, CC
7034		24	0	0	0	24	599.00														
737 7035	4 ML	13	0	0	0	13	325.00	SOUTH	MO	4	20	30 H 528F	WHS		3	4	85 FNV	N	RS	CC	RS, CC
737 7035	4 ML	7	0	0	0	7	175.00	SOUTH	MO	4	20	20 H 528F	WHS		3	4	85 FNV	N	HL	CC	RS, CC
737 7035	4 ML	6	2	0	0	8	212.00	SOUTH	MO	4	20	20 H 528F	WHS		3	4	85 FNV	N	HL	CC	RS, CC
737 7035	4 ML	4	0	0	0	4	100.00	SOUTH	MO	4	20	20 H 528F	WHS		3	4	85 FNV	N	HL	CC	RS, CC
7035		30	2	0	0	32	812.00														
737 7036	4 ML	11	0	0	0	11	275.00	SOUTH	MO	3	15	15 H 528F	WHS		3	2	93 FNV	N	HE	CC	RS, R&W, CC
737 7036	4 ML	20	0	0	0	20	499.00	SOUTH	MO	4	15	20 H 528F	WHS		3	4	85 FNV	N	HE	CC	RS, CC
737 7036	4 ML	15	0	0	0	15	375.00	SOUTH	MO	4	15	20 H 528F	WHS		3	3	89 FNV	N	HE	CC	RS, R&W, CC
7036		46	0	0	0	46	1,149.00														
737 7042	4 TP	0	16	0	0	16	502.00	SOUTH	MM	1	3	4 H 18C	CCD		2	1	80 FW	N	HL	CC	RS, CC
737 7042	4 ML	0	16	0	0	16	502.00	SOUTH	MM	1	2	4 H 18C	CCD		2	1	80 FW	N	HL	CC	RS, CC
737 7042	4 ML	0	38	0	0	38	1,191.00	SOUTH	MM	2	2	4 H 18C	CCD		2	3	83 FW	N	SL	CC	RS, R&W, CC
7042		0	70	0	0	70	2,195.00														
737 7044	4 TP	27	0	0	0	27	674.00	EAST	MM	3	5	8 H 3E	WDC		3	1	93 FNV	N	RS	CC	RS, R&W, CC
737 7044	4 ML	8	1	0	0	9	232.00	EAST	MM	2	9	9 H 4D	CMB		2	1	70 FW	N	HL	CC	RS, CC
7044		35	1	0	0	36	906.00														
737 7045	4 TP	9	6	0	0	15	413.00	SOUTH	MM	2	5	6 H 18C	CCD		2	1	92 FW	N	HL	CC	PB, PLANT(RC&YC), SS, CC
739 7045	3 TP	7	3	0	0	10	270.00	SOUTH	MM	2	5	6 H 18D	CCD		3	1	86 FW	N	HL	CC	PB, PLANT(RC&YC), SS, CC
7045		16	9	0	0	25	683.00														

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VCU	T#	L	RL	U	V	V	V	V	C4	C5	C6	C7	TOTAL	VOLUME	MMBF	ASPECT	VQO	E	P	S	L	O	MIN	MAX	NO	IR	WH	T	SHU	ECO	I	M	C	G	EX	HAB	RB	GH	OT	AE	HM	RT	PROPOSED	FUTURE MANAGEMENT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
737	7046	4	TP	6	5	0	0	0	11	307.00	NORTH	PR	2	4	5	H 2D	WDC	2	1	100	FNW	N	RS	CC	RS, TMPCT, CC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
737	7046	4	ML	0	6	0	0	6	188.00	NORTH	PR	1	4	4	H 11D	WHM	2	1	76	FNW	N	HL	CC	RS, CC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
737	7046	4	TP	6	1	0	0	7	182.00	NORTH	PR	2	4	5	H 2D	WDC	2	1	100	FNW	N	RS	CC	RS, TMPCT, CC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
737	7046	4	TP	8	0	0	0	8	200.00	NORTH	PR	2	5	5	H 11D	WHM	2	1	100	FNW	N	RS	CC	RS, TMPCT, CC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
737	7046	4	TP	3	0	0	0	3	75.00	NORTH	PR	1	4	4	H 24AC	CMC	1	1	60	SE	N	HL	CC	RS, CC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
7046				23	12	0	0	35	952.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

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H	AU	RN	VI	EI	ST	VCU T#	L RL	U EU	D VD	V	O	L	C4	V	O	L	C5	V	O	L	C6	V	O	L	C7	TOTAL	VOLUME	ASPECT	VQO	P	MIN	MAX	ELEV	SMU	ECO	CODE	I	M	C	G	EX	HAB	RB	GH	OT	LE	PH	I	R	M	AE	RT	VH	FUTURE MANAGEMENT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
738	8073	4	TP	0	28	0	28	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	28	878.00	NORTH	MO	4	5	8	H	4D	CMB	2	1	70	FW	N	SL	CC	CC	RS, R&W, CC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
738	8102	4	TP	0	26	0	26	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	26	815.00	WEST	MO	4	9	15	H	3F	WDC	3	1	98	FNW	N	SL	CC	CC	RS, R&W, CC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
738	8109	4	TP	0	10	0	10	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	10	314.00	NORTH	MO	4	8	9	H	4F	CCD	4	1	70	FW	N	RS	CC	CC	RS, R&W, CC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
738	8109	4	TP	0	19	0	19	0	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	19	596.00	NORTH	MO	4	7	10	H	4F	CCD	4	1	70	FW	N	RS	CC	CC	RS, R&W, CC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
738	8109	4	TP	0	14	0	14	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	14	439.00	NORTH	MO	4	9	10	H	4F	CCD	4	1	70	FW	N	RS	CC	CC	RS, R&W, CC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
8109				0	43	0	43	0	0	0	0	0	43	0	0	0	0	0	0	0	0	0	0	0	43	1,349.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

SILVICULTURE DIAGNOSIS - ALTERNATIVE #4

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H AU RN VI EI ST D VCU T#	L RL U EU D	V O L C4	V O L C5	V O L C6	V O L C7	TOTAL ACRES	VOLUME MMBF	ASPECT	VQO	P E ELEV	MIN ELEV	MAX ELEV	SMU DW	ECO CODE	M I G	M C G	I SN TE EX	R ID WET HAB	I PH AA RB	M LE OT GH	HM AE RT VH	PROPOSED FUTURE MANAGEMENT
738 8115	4 TP	0	9	0	0	9	283.00	EAST	MO	3	9	9	M 29EF	WHC	1	3	84	FNW	N	RS	CC	RS, R&W, CC
738 8115	4 TP	6	0	0	0	6	150.00	EAST	PR	4	15	15	H 29EF	WHC	1	5	65	FNW	N	HL	CC	RS, TMPCT, CC
738 8115	4 TP	7	14	0	0	21	614.00	NORTH	PR	3	10	15	M 1E	WDC	3	1	86	FNW	N	RS	CC	RS, R&W, CC
738 8115	4 TP	1	13	0	0	14	433.00	EAST	MO	3	11	15	M 29EF	WHC	1	4	64	FNW	N	RS	CC	RS, TMPCT, CC
738 8115	4 TP	0	31	0	0	31	972.00	EAST	MO	4	7	15	M 29EF	WHC	1	4	75	FNW	N	RS	CC	RS, R&W, CC
8115		14	67	0	0	81	2,452.00															
738 8116	4 TP	0	28	0	0	28	878.00	NORTH	PR	4	9	15	H 29EF	WHC	1	3	65	FNW	N	RS	CC	RS, TMPCT, CC
738 8117	4 TP	0	17	0	0	17	534.00	EAST	PR	4	6	6	M 29EF	WHC	1	4	64	FNW	N	RS	CC	RS, TMPCT, CC
738 8117	4 TP	0	17	0	0	17	534.00	EAST	PR	3	2	4	M 1E	WDC	3	2	93	FNW	N	RS	CC	RS, CC
8117		0	34	0	0	34	1,068.00															
739 9000	3 ML	8	20	0	0	28	827.00	SOUTH	PR	4	11	15	H 74F	WHM	3	1	100	FNW	N	HE	CC	RS, TMPCT, CC
739 9000	3 ML	0	13	0	0	13	408.00	SOUTH	PR	4	5	6	H 74F	WHM	3	1	100	FNW	N	HE	CC	RS, WLPT, CC
739 9000	3 ML	0	17	0	0	17	534.00	SOUTH	PR	4	6	7	H 3F	WDC	3	1	100	FNW	N	HE	CC	RS, WLPT, CC
739 9000	3 ML	0	10	0	0	10	314.00	SOUTH	PR	4	6	6	H 3F	WDC	3	1	100	FNW	N	HE	CC	RS, WLPT, CC
9000		8	60	0	0	68	2,083.00															
739 9015	3 ML	19	0	0	0	19	474.00	WEST	MO	2	15	20	M 4D	CMB	2	1	93	FW	N	HE	SW	FH, RS, R&W, 2-SW
739 9016	3 ML	8	16	0	0	24	702.00	SOUTH	MO	3	12	20	H 3E	WDC	3	1	98	FNW	N	HE	CC	RS, CC
739 9026	3 TP	14	1	0	0	15	382.00	WEST	MM	3	0	15	M 53E	WHS	3	1	100	FNW	N	RS	CC	RS, TMPCT, CC
739 9026	3 TP	13	0	0	0	13	325.00	WEST	MM	3	0	15	M 53E	WHS	3	1	100	FNW	N	RS	CC	RS, TMPCT, CC
739 9026	3 TP	10	0	0	0	10	250.00	WEST	MM	3	15	15	M 53E	WHS	3	1	100	FNW	N	RS	CC	RS, TMPCT, CC
9026		37	1	0	0	38	957.00															
739 9028	3 TP	0	23	0	0	23	722.00	WEST	MM	3	2	4	H 10	SSR	1	1	98	FNW	Y	HL	CC	PLANT(S), SS, CC
739 9031	3 TP	0	25	2	0	27	867.00	EAST	MM	1	7	9	M 25	CMM	1	1	62	SEC	N	RS	CC	RS, R&W, CC
739 9031	3 TP	0	12	0	0	12	376.00	EAST	MM	2	8	9	M 18D	CCD	3	2	81	FW	N	RS	CC	RS, R&W, CC
739 9031	3 TP	0	13	0	0	13	408.00	EAST	MM	3	10	11	M 528E	WHS	3	4	85	FNW	N	RS	CC	RS, TMPCT, CC
9031		0	50	2	0	52	1,651.00															

SILVICULTURE DIAGNOSIS - ALTERNATIVE #4

RN VI EI ST VCU T#	L RL U EU D VD	V L C4	V L C5	V L C6	V L C7	TOTAL ACRES	VOLUME	ASPECT	VQO	L O P E	MIN ELEV	MAX ELEV	SMU DW	ECO CODE	M I	M C	I				R				PROPOSED FUTURE MANAGEMENT		
																	SN	ID	TE	WET	HAB	RB	GH	OT		AE	HM
739 9052	3 TP	0	25	0	0	25	713.00	SOUTH	PR	3	8	9 H 25		CMM	1	1	76 SEC	N	RS	CC	RS, R&W, CC						
739 9052	3 ML	0	5	9	0	14	527.00	SOUTH	PR	4	5	9 H 50F		WHC	4	1	100 FNW	N	RS	CC	RS, TMPCT, CC						
739 9052	3 ML	0	12	0	0	12	376.00	SOUTH	PR	4	7	9 H 50F		WHC	4	1	100 FNW	N	RS	CC	RS, TMPCT, CC						
739 9052	3 ML	0	14	0	0	14	439.00	SOUTH	PR	4	5	9 H 50F		WHC	4	1	100 FNW	N	RS	CC	RS, TMPCT, CC						
739 9052	3 ML	0	12	0	0	12	376.00	SOUTH	PR	4	6	7 H 50F		WHC	4	1	100 FNW	N	HL	CC	RS, WLPCT, CC						
739 9052	3 TP	0	11	0	0	11	314.00	SOUTH	PR	2	7	7 H 25		CMM	1	1	70 SEC	N	HL	CC	RS, CC						
9052		0	79	9	0	88	2,745.00																				
739 9053	3 ML	0	7	1	0	8	261.00	SOUTH	PR	4	6	6 H 50F		WHC	4	1	100 FNW	N	HL	CC	RS, WLPCT, CC						
739 9053	3 ML	0	1	4	0	5	196.00	SOUTH	PR	4	5	5 H 50F		WHC	4	1	100 FNW	N	HL	CC	RS, WLPCT, CC						
739 9053	3 ML	0	5	0	0	5	157.00	SOUTH	PR	4	5	5 H 50F		WHC	4	1	100 FNW	N	HL	CC	RS, WLPCT, CC						
9053		0	13	5	0	18	614.00																				
739 9054	3 ML	0	17	0	0	17	485.00	WEST	MO	2	11	15 H 3D		WDC	2	1	100 FNW	N	SL	CC	RS, TMPCT, CC						
739 9054	3 ML	0	16	0	0	16	502.00	WEST	MO	2	11	15 M 4D		CMB	2	1	78 FW	N	SL	CC	PLANT(YC), SS, CT, SW						
739 9054	3 ML	0	14	0	0	14	439.00	WEST	MO	3	10	15 H 3E		WDC	3	1	92 FNW	N	SL	CC	RS, R&W, CC						
739 9054	3 ML	0	25	0	0	25	784.00	WEST	MO	2	7	15 H 3E		WDC	3	1	85 FNW	N	SL	CC	RS, R&W, CC						
9054		0	72	0	0	72	2,210.00																				
739 9067	3 TP	0	13	0	0	13	408.00	EAST	MO	2	15	15 H 1D		WDC	2	1	100 FNW	N	HL	CC	RS, TMPCT, CC						
739 9067	3 TP	0	12	0	0	12	376.00	EAST	MO	2	0	0 H 1D		WDC	2	1	100 FNW	N	HL	CC	RS, TMPCT, CC						
739 9067	3 TP	2	17	0	0	19	583.00	EAST	MO	2	0	15 H 24D		CMC	1	1	93 SE	N	RS	CC	RS, CC						
739 9067	3 TP	0	11	0	0	11	345.00	EAST	MO	2	0	0 H 1D		WDC	2	1	85 FNW	N	HL	CC	RS, CC						
739 9067	3 TP	4	12	0	0	16	476.00	EAST	MO	2	0	15 H 1D		WDC	2	1	100 FNW	N	HL	CC	RS, TMPCT, CC						
9067		6	65	0	0	71	2,188.00																				
739 9069	3 TP	0	3	3	0	6	218.00	EAST	MO	1	5	6 H 11C		WHM	1	1	100 FNW	N	HL	CC	RS, TMPCT, CC						
739 9069	3 TP	0	0	34	0	34	1,395.00	EAST	MO	2	5	8 H 528E		WHS	3	3	92 FNW	N	HL	CC	RS, CC						
9069		0	3	37	0	40	1,613.00																				
739 9083	3 TP	9	2	0	0	11	287.00	WEST	MM	3	11	12 M 53E		WHS	3	1	100 FNW	N	RS	CC	RS, TMPCT, CC						
739 9083	3 TP	7	3	0	0	10	270.00	WEST	MM	3	9	10 M 53E		WHS	3	1	100 FNW	N	HL	CC	RS, TMPCT, CC						
9083		16	5	0	0	21	557.00																				
739 9089	3 TP	0	62	0	0	62	1,944.00	EAST	MM	4	0	15 M 3F		WDC	3	1	100 FNW	N	HE	CC	RS, TMPCT, CC						

SILVICULTURE DIAGNOSIS - ALTERNATIVE #4

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H AU RN VI EI ST VCU T#	L RL U EU D VD	V O L C4	V O L C5	V O L C6	V O L C7	TOTAL ACRES	VOLUME MMBF	ASPECT	VQO	P E L	S L O	MIN ELEV	MAX ELEV	SMU DW	ECO CODE	M I G	M C G	I SN ID	R I PH AA	M LE OT	HM AE RT VH	PROPOSED FUTURE MANAGEMENT
739 9099	3 TP	0	4	0	0	4	125.00	WEST	MM	4	4	0	15	H 528F	WHS	3	4	85 FNW	N	HL	CC	RS, TMPCT, CC
739 9099	3 TP	4	12	0	0	16	476.00	EAST	MM	3	3	0	15	M 11E	WHS	3	1	88 FNW	N	HL	CC	RS, CC
739 9099	3 TP	2	2	0	0	4	112.00	EAST	MM	2	2	2	8	M 4D	CMB	2	1	70 FV	N	RS	CC	RS, R&W, CC
739 9099	3 TP	0	6	0	0	6	188.00	EAST	MM	3	3	11	11	M 11E	WHS	3	1	100 FNW	N	RS	CC	RS, TMPCT, CC
739 9099	3 TP	9	5	0	0	14	382.00	EAST	MM	2	2	9	11	M 4D	CMB	2	1	75 FV	N	HL	CC	RS, CC
739 9099	3 TP	3	5	0	0	8	232.00	EAST	MM	3	3	0	15	M 11E	WHS	3	1	87 FNW	N	RS	CC	RS, R&W, CC
739 9099	3 TP	2	16	0	0	18	551.00	EAST	MM	3	3	11	15	M 11E	WHS	3	1	91 FNW	N	RS	CC	RS, R&W, CC
739 9099	3 TP	1	9	0	0	10	308.00	EAST	MM	2	2	11	11	M 4D	CMB	2	1	82 FV	N	RS	CC	RS, R&W, CC
739 9099	3 TP	4	2	0	0	6	163.00	EAST	MM	2	2	0	0	M 4D	CMB	2	1	83 FV	N	RS	CC	RS, R&W, CC
739 9099	3 TP	6	2	0	0	8	212.00	EAST	MM	2	2	15	15	M 4D	CMB	2	1	70 FV	N	HL	CC	RS, CC
9099		31	63	0	0	94	2,749.00															
739 9100	3 TP	2	5	0	0	7	207.00	WEST	MM	4	4	0	15	H 528F	WHS	3	4	85 FNW	N	HL	CC	RS, TMPCT, CC
739 9101	3 TP	3	3	0	0	6	169.00	EAST	MM	3	3	0	30	M 11E	WHS	3	1	100 FNW	N	HL	CC	RS, TMPCT, CC
739 9101	3 TP	5	9	0	0	14	407.00	EAST	MM	3	3	0	30	M 11E	WHS	3	1	100 FNW	N	HL	CC	RS, TMPCT, CC
739 9101	3 TP	0	16	0	0	16	502.00	EAST	MM	3	3	0	15	M 11E	WHS	3	1	100 FNW	N	HL	CC	RS, TMPCT, CC
739 9101	3 TP	9	12	0	0	21	601.00	EAST	MM	3	3	0	30	M 11E	WHS	3	1	92 FNW	N	RS	CC	RS, CC
739 9101	3 TP	0	15	0	0	15	471.00	EAST	MM	3	3	0	15	M 11E	WHS	3	1	100 FNW	N	HL	CC	RS, TMPCT, CC
739 9101	3 TP	12	7	0	0	19	519.00	EAST	MM	4	4	0	30	M 19F	WHS	3	1	65 FV	N	RS	CC	RS, TMPCT, CC
739 9101	3 TP	0	6	0	0	6	188.00	EAST	MM	3	3	0	0	M 11E	WHS	3	1	100 FNW	N	HL	CC	RS, TMPCT, CC
739 9101	3 TP	3	21	0	0	24	734.00	EAST	MM	3	3	0	15	M 11E	WHS	3	1	100 FNW	N	HE	CC	RS, TMPCT, CC
739 9101	3 TP	0	10	0	0	10	314.00	EAST	MM	3	3	15	15	M 11E	WHS	3	1	100 FNW	N	HE	CC	RS, TMPCT, CC
9101		32	99	0	0	131	3,905.00															
739 9102	3 TP	0	3	0	14	17	727.00	EAST	MM	3	3	1	3	H 2E	WDC	2	2	94 FNW	N	RS	CC	RS, CC
739 9102	3 TP	0	0	0	3	3	135.00	EAST	MM	3	3	1	1	H 2E	WDC	2	1	100 FNW	N	HL	CC	RS, TMPCT, CC
9102		0	3	0	17	20	862.00															
739 9103	3 ML	0	12	0	0	12	376.00	NORTH	PR	3	3	5	6	H 3E	WDC	3	1	100 FNW	N	HL	CC	RS, TMPCT, CC
739 9103	3 ML	0	8	0	0	8	251.00	NORTH	PR	3	3	5	6	H 351E	WHS	3	1	100 FNW	N	HL	CC	RS, TMPCT, CC
9103		0	20	0	0	20	627.00															
739 9104	3 ML	0	0	12	0	12	493.00	NORTH	PR	3	3	10	11	H 1E	WDC	3	1	100 FNW	N	RS	CC	RS, TMPCT, CC
739 9104	3 ML	1	6	20	0	27	1,034.00	NORTH	PR	3	3	9	15	H 1F	WDC	3	1	97 FNW	N	RS	CC	RS, R&W, CC
739 9104	3 ML	0	4	16	0	20	782.00	NORTH	PR	3	3	0	15	H 1E	WDC	3	1	100 FNW	N	RS	CC	RS, TMPCT, CC
739 9104	3 ML	0	5	11	0	16	608.00	NORTH	PR	3	3	6	7	H 1E	WDC	3	1	100 FNW	N	RS	CC	RS, TMPCT, CC
9104		1	15	59	0	75	2,917.00															

SILVICULTURE DIAGNOSIS - ALTERNATIVE #4

[illegible]

SILVICULTURE DIAGNOSIS - ALTERNATIVE #5

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H

AU

RN

VI

EI

ST

VCU T#

L RL

U EU

D VD

V O

L C4

V O

L C5

V O

L C6

V O

L C7

TOTAL

ACRES

VOLUME

MMBF

ASPECT

V00

ELEV

DW

SMU

CODE

ECO

I

G

EX

HAB

RB

GH

VH

FUTURE

MANAGEMENT

FH,RS,R&W,2-SW

PLANT(YC),SS,CT,SW

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

RS,CC

SILVICULTURE DIAGNOSIS - ALTERNATIVE #5

[illegible]

SILVICULTURE DIAGNOSIS - ALTERNATIVE #5

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RN VI EI ST VCU T#	L RL U EU D VD	V L C4	V L C5	V L C6	V L C7	TOTAL ACRES	VOLUME MMBF	ASPECT	V00	E	MIN ELEV	MAX ELEV	T WH IR	SMU DW	ECO CODE	M I	M C	I G	EX HAB	PH AA	OT GH	HM AE VH	PROPOSED FUTURE MANAGEMENT
735 5040	3 SV	0	7	0	0	7	220.00	NORTH	PR	2	11	11	H	19D	WHS	2	1	65	FW	N	HL	CC	RS, TMPCT, CC
735 5040	3 SV	1	10	0	0	11	339.00	NORTH	PR	2	11	11	H	19D	WHS	2	1	65	FW	N	HL	CC	RS, TMPCT, CC
5040		1	17	0	0	18	559.00																
735 5041	3 SV	0	9	0	0	9	283.00	NORTH	MM	2	4	6	H	540	WHS	2	4	88	FNW	N	HL	CC	RS, TMPCT, CC
735 5041	3 SV	0	6	0	0	6	188.00	NORTH	MM	2	2	4	H	540	WHS	2	4	90	FNW	N	HL	CC	RS, TMPCT, CC
5041		0	15	0	0	15	471.00																
735 5042	3 SV	5	0	0	0	5	124.00	NORTH	PR	2	15	15	H	540	WHS	2	4	90	FNW	N	RS	CC	RS, TMPCT, CC
735 5042	3 SV	4	11	0	0	15	446.00	NORTH	MM	2	10	10	H	25	CHM	1	3	82	SEC	N	RS	CC	RS, CC
735 5042	3 SV	24	2	0	0	26	662.00	NORTH	MM	2	15	20	H	540	WHS	2	4	85	FNW	N	RS	CC	RS, CC
5042		33	13	0	0	46	1,232.00																
735 5043	3 TP	0	12	0	0	12	376.00	NORTH	MM	2	4	6	H	540	WHS	2	3	77	FNW	N	RS	CC	RS, CC
735 5043	3 SV	0	16	0	0	16	502.00	NORTH	MM	2	6	8	H	540	WHS	2	4	90	FNW	N	RS	CC	RS, TMPCT, CC
5043		0	28	0	0	28	878.00																
735 5044	3 SV	0	31	0	0	31	972.00	NORTH	PR	2	9	15	M	25	CHM	1	4	85	SEC	N	SL	CC	RS, R&W, CC
735 5046	3 SV	4	3	0	0	7	195.00	SOUTH	PR	1	3	3	H	33C	CCS	2	4	75	FIW	N	HL	CC	RS, WLPCT, CC
735 5046	3 SV	10	0	0	0	10	250.00	SOUTH	MO	2	3	4	H	33D	CCS	3	4	75	FIW	N	HL	CC	RS, WLPCT, CC
735 5046	3 SV	8	6	0	0	13	388.00	SOUTH	MO	2	2	3	H	33D	CCS	3	3	69	FIW	N	HL	CC	RS, CC
735 5046	3 SV	0	8	0	0	8	251.00	SOUTH	PR	1	3	3	H	33C	CCS	2	4	75	FIW	N	HL	CC	RS, WLPCT, CC
5046		22	17	0	0	38	1,084.00																
735 5047	3 SV	7	8	0	0	15	426.00	EAST	MM	1	3	5	H	33D	CCS	3	4	75	FIW	N	RS	CC	RS, TMPCT, CC
735 5047	3 SV	8	4	0	0	12	326.00	EAST	PR	2	3	5	H	33D	CCS	3	4	75	FIW	N	RS	CC	RS, TMPCT, CC
5047		15	12	0	0	27	752.00																
735 5048	3 SV	15	0	0	0	15	375.00	EAST	PR	3	3	5	H	33E	CCS	3	4	75	FIW	N	HL	CC	RS, TMPCT, CC
735 5048	3 SV	2	0	0	0	2	50.00	EAST	PR	3	3	8	H	33E	CCS	3	4	75	FIW	N	HL	CC	RS, TMPCT, CC
735 5048	3 SV	7	4	0	0	11	300.00	EAST	PR	3	6	6	H	33E	CCS	3	4	75	FIW	N	HL	CC	RS, TMPCT, CC
5048		24	4	0	0	28	725.00																
735 5049	3 SV	5	9	0	0	14	407.00	EAST	PR	3	10	10	H	33E	CCS	3	4	80	FIW	N	RS	CC	RS, TMPCT, CC

SILVICULTURE DIAGNOSIS - ALTERNATIVE #5

AU	RN	VI	EI	ST	T#	V	O	L	C4	V	O	L	C5	V	O	L	C6	V	O	L	C7	TOTAL ACRES	VOLUME MMBF	ASPECT	VQO ELEV	P MIN ELEV	S MAX NO DW	T WH IR	M C I G	I SN ID	R PH AA WET HAB	M LE OT GH	HM AE RT VH	PROPOSED FUTURE MANAGEMENT
7355	5050	3 ML				0	5	0	0	0	0	0	5	157.00	EAST	PR 2	3	3 H	5280	WHS	2	4	85	FNW	N	HL	CC	RS,TMPCT,CC						
7355	5051	3 ML				0	2	0	0	0	0	0	2	63.00	EAST	PR 2	3	4 H	5280	WHS	2	4	85	FNW	N	HL	CC	RS,TMPCT,CC						
736	6002	4 ML				9	13	0	0	0	0	0	22	633.00	NORTH	PR 2	3	5 H	3D	WDC	2	1	89	FNW	N	HL	CC	RS,CC						
736	6002	4 ML				1	5	0	0	0	0	0	6	183.00	NORTH	PR 2	2	2 H	3D	WDC	2	1	FNW	N	HL	CC	RS,TMPCT,CC							
736	6002	4 ML				3	6	0	0	0	0	0	9	263.00	NORTH	PR 2	2	3 H	3D	WDC	2	1	FNW	N	HL	CC	RS,TMPCT,CC							
736	6002	4 ML				6	1	0	0	0	0	0	7	182.00	NORTH	PR 2	2	3 H	3D	WDC	2	1	FNW	N	HL	CC	RS,TMPCT,CC							
6002						19	25	0	0	0	0	0	44	1,261.00																				
736	6027	4 ML				0	14	0	0	0	0	0	14	439.00	SOUTH	PR 2	2	3 H	3D	WDC	2	1	FNW	N	HL	CC	RS,WLPCT,CC							
736	6027	4 ML				0	5	0	0	0	0	0	5	157.00	SOUTH	PR 2	2	2 H	3D	WDC	2	1	FNW	N	HL	CC	RS,WLPCT,CC							
736	6027	4 ML				0	6	0	0	0	0	0	6	188.00	SOUTH	PR 2	2	2 H	3D	WDC	2	1	FNW	N	HL	CC	RS,WLPCT,CC							
736	6027	4 ML				0	12	0	0	0	0	0	12	376.00	SOUTH	PR 1	1	2 H	24AC	CMC	1	1	76	SE	N	HL	CC	RS,CC						
6027						0	37	0	0	0	0	0	37	1,160.00																				
736	6033	4 ML				14	0	0	0	0	0	0	14	350.00	SOUTH	PR 2	3	6 H	3E	WDC	3	1	FNW	N	SL	CC	RS,WLPCT,CC							
736	6034	4 ML				6	0	0	0	0	0	0	6	150.00	SOUTH	PR 3	4	4 H	3E	WDC	3	1	FNW	N	HL	CC	RS,WLPCT,CC							
736	6034	4 ML				7	0	0	0	0	0	0	7	175.00	SOUTH	PR 2	3	3 H	3D	WDC	2	1	FNW	N	HL	CC	RS,WLPCT,CC							
6034						13	0	0	0	0	0	0	13	325.00																				
736	6035	4 ML				5	6	0	0	0	0	0	11	312.00	SOUTH	PR 3	4	5 H	3E	WDC	3	1	89	FNW	N	HL	CC	RS,CC						
736	6035	4 ML				4	0	0	0	0	0	0	4	100.00	SOUTH	PR 3	4	4 H	3E	WDC	3	1	FNW	N	HL	CC	RS,WLPCT,CC							
736	6035	4 ML				2	13	0	0	0	0	0	15	458.00	SOUTH	PR 3	3	4 H	3E	WDC	3	1	82	FNW	N	RS	CC	RS,CC						
736	6035	4 ML				0	14	0	0	0	0	0	14	439.00	SOUTH	PR 2	2	3 H	24D	CMC	1	1	75	SE	N	RS	CC	PB,PLANT(RC&VC),SS,CC						
6035						11	33	0	0	0	0	0	44	1,309.00																				
736	6036	4 ML				16	6	0	0	0	0	0	22	587.00	SOUTH	PR 2	2	3 H	3D	WDC	2	1	FNW	N	HL	CC	RS,WLPCT,CC							
736	6037	4 TP				23	0	0	0	0	0	0	23	574.00	SOUTH	PR 2	3	6 H	75D	WHS	2	4	85	FNW	N	RS	CC	RS,WLPCT,CC						
736	6038	4 ML				0	10	0	0	0	0	0	10	314.00	SOUTH	PR 2	11	12 H	86CD	NWE	1	1	93	SEC	N	RS	CC	RS,CC						
736	6038	4 ML				0	12	0	0	0	0	0	12	376.00	SOUTH	PR 3	10	11 H	3E	WDC	3	1	FNW	N	RS	CC	RS,TMPCT,CC							
6038						0	22	0	0	0	0	0	22	690.00																				

SILVICULTURE DIAGNOSIS - ALTERNATIVE #5

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H	AU	RN	VI	EL	ST	VCU T#	L RL	U EU	D VD	V	V	V	V	V	V	L	C4	C5	C6	C7	TOTAL	VOLUME	ASPECT	VQO E	P MIN	MAX NO	T WH	IR	ECO	CODE	SNU	DW	I SN	ID	M C	G EX	HAB	RB	GH	OT	LE	M	I	R	PH	AA	OT	AE	HM	PROPOSED	FUTURE MANAGEMENT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
736	6050						4 ML		0	0	6	0	6	0	6	246.00	WEST	MO 2	9	9	H 30	WDC	2	1	1	FNW	N	RS	CC	RS, TMPCT, CC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														

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737	7029	4	TP	0	7	0	0	0	0	7	220.00	NORTH	PR	1	15	15	M	28	CCS	1	1	75	FNW	N	HL	CC	PLANT(YC), SS, CT, SW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
737	7029	4	TP	7	3	0	0	0	0	10	270.00	NORTH	PR	2	11	12	H	550D	CCD	3	1	70	FW	N	HL	CC	RS, CC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
7029				7	10	0	0	0	0	17	490.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														

SILVICULTURE DIAGNOSIS - ALTERNATIVE #5

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RN	VI	EI	ST	VCU T#	L RL	U EU	D VD	V L	V L	V L	V L	V L	V L	C4	C5	C6	C7	TOTAL	VOLUME	MMBF	ASPECT	VQO	P	S	L	O	MIN	MAX	T	WH	IR	ECO	CODE	I	M	R	PH	LE	AE	HM	PROPOSED	FUTURE	MANAGEMENT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		

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H	AU	VI	ST	VCU T#	L RL	U EU	D VD	V C4	V L C5	V L C6	V L C7	TOTAL ACRES	VOLUME	ASPECT	VQO E	P	MIN ELEV	MAX ELEV	NO DW	SMU	CODE	ECO	M I	M C	M G	I SN	I ID	R PH	I LE	M OT	HM AE	RT	VH	PROPOSED	FUTURE MANAGEMENT		
738 8088	4 TP			0	7	0	0	0	7	220.00	WEST	PR 1	8	8	8	25	CHM	1	1	45	SEC	N	HL	CC	CC	RS,CC											
738 8088	4 TP			0	5	19	0	0	24	937.00	WEST	PR 2	6	8	8	74E	WHM	2	1	78	FNW	N	RS	CC	CC	RS,R&W,CC											
738 8088	4 TP			0	0	11	0	0	11	451.00	WEST	PR 3	7	8	8	74E	WHM	2	1	FNW	N	HL	CC	CC	RS,WLPCT,CC												
738 8088	4 TP			0	0	10	0	0	10	410.00	WEST	PR 3	7	8	8	528E	WHS	3	4	85	FNW	N	SL	CC	CC	RS,WLPCT,CC											
8088				0	12	40	0	0	52	2,018.00																											
738 8089	4 TP			0	8	6	0	0	14	497.00	EAST	PR 3	20	20	20	33E	CCS	3	4	79	FIW	N	RS	CC	CC	RS,CC											
738 8089	4 TP			0	16	12	0	0	28	994.00	EAST	PR 3	15	20	20	33E	CCS	3	4	79	FIW	N	RS	CC	CC	RS,CC											
8089				0	24	18	0	0	42	1,491.00																											
738 8090	4 TP			0	14	0	0	0	14	439.00	NORTH	PR 1	2	3	3	25	CHM	1	1	45	SEC	N	HL	CC	CC	RS,CC											
738 8090	4 TP			0	6	0	0	0	6	188.00	NORTH	PR 3	3	3	3	3E	WDC	3	1	FNW	N	HL	CC	CC	RS,TMPCT,CC												
8090				0	20	0	0	0	20	627.00																											
738 8091	4 TP			0	4	0	0	0	4	125.00	SOUTH	PR 3	7	7	7	3E	WDC	3	1	FNW	N	HL	CC	CC	RS,WLPCT,CC												
738 8091	4 TP			0	12	0	0	0	12	376.00	SOUTH	PR 3	7	8	8	3E	WDC	3	1	FNW	N	HL	CC	CC	RS,WLPCT,CC												
738 8091	4 TP			0	17	0	0	0	17	534.00	SOUTH	PR 3	4	7	7	3E	WDC	3	1	FNW	N	RS	CC	CC	RS,WLPCT,CC												
738 8091	4 TP			0	11	0	0	0	11	345.00	SOUTH	PR 3	5	6	6	3E	WDC	3	1	FNW	N	RS	CC	CC	RS,WLPCT,CC												
8091				0	44	0	0	0	44	1,380.00																											
738 8092	4 TP			5	6	0	0	0	11	312.00	NORTH	MO 3	6	7	7	2E	WDC	2	1	FNW	N	HL	CC	CC	RS,TMPCT,CC												
738 8092	4 TP			3	3	0	0	0	6	169.00	NORTH	MO 3	6	6	6	2E	WDC	2	1	FNW	N	HL	CC	CC	RS,TMPCT,CC												
738 8092	4 TP			2	1	0	0	0	3	81.00	NORTH	MO 3	7	7	7	2E	WDC	2	1	FNW	N	HL	CC	CC	RS,CC												
738 8092	4 TP			2	2	0	0	0	4	112.00	NORTH	MO 2	7	7	7	180	CCD	3	1	80	FW	N	HL	CC	CC	RS,CC											
738 8092	4 TP			13	0	0	0	0	13	325.00	NORTH	MO 2	8	9	9	180	CCD	3	1	80	FW	N	HL	CC	CC	RS,CC											
738 8092	4 TP			5	0	0	0	0	5	124.00	NORTH	MO 2	8	8	8	180	CCD	3	1	80	FW	N	HL	CC	CC	RS,CC											
8092				30	12	0	0	0	42	1,123.00																											
738 8093	4 TP			9	0	0	0	0	9	224.00	EAST	MO 2	7	7	7	180	CCD	3	1	83	FW	N	HL	CC	CC	RS,CC											
738 8093	4 TP			6	0	0	0	0	6	150.00	EAST	MO 1	6	6	6	331C	WDC	2	1	90	FIC	N	HL	CC	CC	RS,TMPCT,CC											
738 8093	4 TP			9	0	0	0	0	9	224.00	EAST	MO 1	8	9	9	331C	WDC	2	1	90	FIC	N	HL	CC	CC	RS,TMPCT,CC											
738 8093	4 TP			11	0	0	0	0	11	275.00	EAST	MO 1	8	8	8	331C	WDC	2	1	90	FIC	N	HL	CC	CC	RS,TMPCT,CC											
738 8093	4 TP			13	0	0	0	0	13	325.00	EAST	MO 1	9	9	9	331D	WDC	3	1	62	FIC	N	HL	CC	CC	RS,CC											
8093				48	0	0	0	0	48	1,198.00																											
738 8094	4 TP			1	14	0	0	0	15	464.00	NORTH	MO 2	5	7	7	331D	WDC	3	1	90	FIC	N	HL	CC	CC	RS,TMPCT,CC											

SILVICULTURE DIAGNOSIS - ALTERNATIVE #5

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H AU RN VI EI ST VCU T#	L RL U EU D VD	V O L C4	V O L C5	V O L C6	V O L C7	TOTAL ACRES	VOLUME MMBF	ASPECT	V00	E	P	MIN ELEV	MAX ELEV	NO DW	T WH IR	ECO CODE	M I	M C	I G	EX HAB	WET AA	PH RB	R I SN	M ID	LE OT	HM AE RT VH	PROPOSED FUTURE MANAGEMENT
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738 8095	4 TP	0	14	0	0	14	439.00	NORTH	MO	4	9	10	H	4F	CCD	4	1	70	FW	N	RS	CC	RS, CC
738 8096	4 TP	0	12	0	0	12	376.00	WEST	MO	4	12	15	M	54F	WHM	3	1	FNW	N	HL	CC	RS, TMPCT, CC	
738 8096	4 TP	3	2	0	0	5	138.00	WEST	MO	4	15	15	M	54F	WHM	3	1	FNW	N	HL	CC	RS, TMPCT, CC	
8096		3	14	0	0	17	514.00																
738 8097	4 TP	0	8	0	0	8	251.00	NORTH	MO	4	12	15	M	43EF	MHU	3	4	60	NWH	N	HL	CC	RS, CC
738 8098	4 TP	8	4	0	0	12	326.00	EAST	MO	3	8	10	M	18D	CCD	3	1	91	FW	N	HL	CC	RS, CC
738 8098	4 TP	8	5	0	0	13	358.00	EAST	MO	2	8	8	M	18D	CCD	3	1	74	FW	N	HL	CC	RS, CC
738 8098	4 TP	12	0	0	0	12	299.00	EAST	MO	3	8	9	M	18D	CCD	3	1	71	FW	N	HL	CC	RS, CC
738 8098	4 TP	1	4	0	0	5	151.00	EAST	MO	4	15	15	M	54F	WHM	3	1	FNW	N	HL	CC	RS, TMPCT, CC	
738 8098	4 TP	2	6	0	0	8	238.00	EAST	MO	4	15	15	M	54F	WHM	3	1	FNW	N	HL	CC	RS, TMPCT, CC	
738 8098	4 TP	6	9	0	0	15	432.00	EAST	MO	3	9	11	M	54F	WHM	3	1	77	FNW	N	RS	CC	RS, CC
738 8098	4 TP	8	0	0	0	8	200.00	EAST	MO	4	12	15	M	19F	WHC	3	1	65	FW	N	HL	CC	RS, TMPCT, CC
738 8098	4 TP	11	0	0	0	11	275.00	EAST	MO	2	10	11	M	25	CMM	1	1	51	SEC	N	HL	CC	RS, CC
8098		56	28	0	0	84	2,279.00																
738 8099	4 TP	5	0	0	0	5	124.00	NORTH	MO	2	6	6	M	18D	CCD	3	1	80	FW	N	HL	CC	RS, CC
738 8099	4 TP	6	0	0	0	6	150.00	NORTH	MO	2	6	6	M	18D	CCD	3	1	80	FW	N	HL	CC	RS, CC
8099		11	0	0	0	11	274.00																
738 8100	4 TP	0	7	0	0	7	220.00	WEST	MM	2	15	15	M	18D	CCD	3	1	80	FW	N	HL	CC	RS, CC
738 8100	4 TP	0	12	0	0	12	376.00	WEST	MM	3	20	20	M	18D	CCD	3	1	95	FW	N	RS	CC	RS, R&W, CC
738 8100	4 TP	0	22	0	0	22	690.00	WEST	MM	4	15	20	M	18D	CCD	3	1	97	FW	N	HL	CC	RS, CC
738 8100	4 TP	0	13	0	0	13	408.00	WEST	MM	4	20	20	H	54F	WHM	3	1	88	FNW	N	HL	CC	RS, CC
8100		0	54	0	0	54	1,694.00																
738 8101	4 TP	0	18	0	0	18	564.00	NORTH	MM	2	4	8	M	1D	WDC	2	1	91	FNW	N	HL	CC	RS, CC
738 8102	4 TP	0	26	0	0	26	815.00	WEST	MO	4	9	15	H	3F	WDC	3	1	98	FNW	N	SL	CC	RS, R&W, CC
738 8103	4 TP	0	10	12	0	22	806.00	EAST	MO	2	7	8	H	86CD	NME	1	1	96	SEC	N	HL	CC	RS, CC

SILVICULTURE DIAGNOSIS - ALTERNATIVE #5

RN	VI	EL	ST	VCU T#	L RL	U EU	D VD	V L	V L	V L	V L	V L	V L	C4	C5	C6	C7	TOTAL	VOLUME	ASPECT	VQO	P	MIN	MAX	T	WH	IR	I	SN	ID	M	C	G	EX	HAB	RB	GH	LE	OT	AE	HM	PROPOSED	FUTURE MANAGEMENT
739 9013	3 ML	0	14	0	0	0	14	439.00	SOUTH	MO	3	20	20 M	4E	CCD	3	1	57	FW	N	HE	SW	FH,RS,R&W,2-SW																				
739 9014	3 ML	10	7	6	0	23	651.00	SOUTH	MO	3	20	20 H	1E	WDC	3	1	96	FW	N	HE	CC	RS,R&W,CC																					
739 9014	3 ML	21	0	0	0	21	525.00	SOUTH	MO	2	15	20 M	4E	CCD	3	1	73	FW	N	HE	SW	FH,RS,R&W,2-SW																					
9014		31	7	6	0	44	1,176.00																																				
739 9015	3 ML	19	0	0	0	19	474.00	WEST	MO	2	15	20 M	4D	CMB	2	1	93	FW	N	HE	SW	FH,RS,R&W,2-SW																					
739 9016	3 ML	8	16	0	0	24	702.00	SOUTH	MO	3	12	20 H	3E	WDC	3	1	98	FW	N	HE	CC	RS,CC																					
739 9018	3 TP	0	7	1	0	8	261.00	EAST	MM	2	3	3 H	3D	WDC	2	1	FW	N	HL	CC	RS,TMPCT,CC																						
739 9018	3 TP	0	13	0	0	13	408.00	EAST	MM	3	3	3 H	3D	WDC	2	2	96	FW	N	HL	CC	RS,CC																					
739 9018	3 TP	0	15	0	0	15	471.00	EAST	MM	4	4	8 H	3F	WDC	3	1	FW	N	RS	CC	RS,TMPCT,CC																						
739 9018	3 TP	0	9	0	0	9	283.00	EAST	MM	4	6	8 H	6	CCS	2	5	85	FW	N	RS	CC	RS,TMPCT,CC																					
9018		0	44	1	0	45	1,423.00																																				
739 9021	3 TP	0	15	0	0	15	471.00	SOUTH	PR	2	3	5 M	3D	WDC	2	1	FW	N	HL	CC	RS,WLPCT,CC																						
739 9021	3 TP	0	5	0	0	5	157.00	SOUTH	PR	2	4	4 M	3D	WDC	2	1	FW	N	HL	CC	RS,WLPCT,CC																						
739 9021	3 TP	4	1	0	0	5	132.00	SOUTH	PR	2	4	4 M	3D	WDC	2	1	FW	N	HL	CC	RS,WLPCT,CC																						
9021		4	21	0	0	25	760.00																																				
739 9022	3 TP	18	13	0	0	31	858.00	EAST	PR	4	15	20 M	528F	WHS	3	4	85	FW	N	HE	CC	RS,CC																					
739 9022	3 TP	1	9	6	0	16	554.00	EAST	PR	3	5	6 M	528F	WHS	3	3	91	FW	N	SL	CC	RS,CC																					
9022		19	22	6	0	47	1,412.00																																				
739 9026	3 TP	14	1	0	0	15	382.00	WEST	MM	3	0	15 M	53E	WHS	3	1	FW	N	RS	CC	RS,TMPCT,CC																						
739 9026	3 TP	13	0	0	0	13	325.00	WEST	MM	3	0	15 M	53E	WHS	3	1	FW	N	RS	CC	RS,TMPCT,CC																						
739 9026	3 TP	10	0	0	0	10	250.00	WEST	MM	3	15	15 M	53E	WHS	3	1	FW	N	RS	CC	RS,TMPCT,CC																						
9026		37	1	0	0	38	957.00																																				
739 9027	3 TP	5	5	0	0	10	282.00	WEST	MM	1	8	9 M	10	SSR	1	1	FW	N	RS	CC	PLANT(S),SS,CC																						
739 9027	3 TP	5	5	0	0	10	282.00	WEST	MM	3	10	10 M	10	SSR	1	3	94	FW	N	RS	CC	PLANT(S),SS,CC																					
739 9027	3 TP	0	25	0	0	25	784.00	WEST	MM	2	6	8 M	18D	CCD	3	1	90	FW	N	RS	CC	RS,CC																					
739 9027	3 TP	5	13	0	0	18	532.00	WEST	MM	2	8	11 M	53D	WHS	2	1	83	FW	N	RS	CC	RS,CC																					
9027		15	48	0	0	63	1,880.00																																				

SILVICULTURE DIAGNOSIS - ALTERNATIVE #5

[illegible]

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RN VI EI ST VCU T#	L RL U EU D VD	V O L C4	V O L C5	V O L C6	V O L C7	TOTAL ACRES	VOLUME MMBF	ASPECT	VQO	S L O P E	MIN ELEV	MAX ELEV	T WH IR NO DW	ECO CODE	M C I	I SN ID TE EX	R PH AA RB	M LE OT GH	HM AE RT VH	PROPOSED	FUTURE MANAGEMENT		
733 3021	3 ML	0	23	0	0	23	722.00	SOUTH	PR	3	2	5	H	528E	WHS	3	4	85	FNW	N	SL	CC	RS, WLPCT, CC
733 3021	3 ML	0	33	0	0	33	1,035.00	SOUTH	MM	3	2	4	H	528E	WHS	3	4	85	FNW	N	SL	CC	RS, WLPCT, CC
733 3021	3 ML	0	3	7	0	10	382.00	SOUTH	MM	3	2	2	H	528E	WHS	3	4	85	FNW	N	HL	CC	RS, WLPCT, CC
3021																							
733 3022	3 TP	35	1	0	0	36	906.00	SOUTH	MM	2	10	15	H	19D	WHC	2	1	65	FW	N	SL	CC	RS, TMPCT, CC
733 3022	3 TP	10	30	0	0	40	1,190.00	SOUTH	MM	2	12	20	H	29EF	WHC	1	2	66	FNW	N	SL	CC	RS, TMPCT, CC
3022																							
733 3023	3 ML	0	50	0	0	50	1,568.00	SOUTH	PR	3	3	11	H	528F	WHS	3	4	85	FNW	N	HE	CC	RS, TMPCT, CC
733 3024	3 TP	16	2	0	0	18	462.00	WEST	MM	2	12	15	M	25	CMH	1	1	80	SEC	N	RS	CC	RS, R&W, CC
733 3024	3 TP	29	2	0	0	31	787.00	WEST	MM	2	11	15	M	3D	WDC	2	1	89	FNW	N	RS	CC	RS, R&W, CC
733 3024	3 TP	12	12	0	0	24	675.00	WEST	MM	3	8	12	M	75E	WHS	2	3	88	FNW	N	RS	CC	RS, R&W, CC
3024																							
733 3025	3 TP	9	7	0	0	16	444.00	NORTH	MO	2	3	4	H	11D	WHM	2	1	100	FNW	N	HL	CC	RS, TMPCT, CC
733 3025	3 SP	4	0	0	0	4	100.00	NORTH	MO	2	5	5	H	11D	WHM	2	1	100	FNW	N	RS	CC	RS, TMPCT, CC
733 3025	3 SP	10	6	0	0	16	438.00	NORTH	MO	2	4	5	H	11D	WHM	2	2	97	FNW	N	RS	CC	RS, R&W, CC
733 3025	3 TP	0	5	0	0	5	157.00	NORTH	MO	4	7	7	H	528F	WHS	3	4	85	FNW	N	RS	CC	RS, TMPCT, CC
733 3025	3 SP	0	12	0	0	12	376.00	NORTH	MM	2	5	7	H	21A	NFS	1	1	83	MP	N	RS	CC	RS, R&W, CC
733 3025	3 TP	7	24	0	0	31	927.00	NORTH	MM	2	9	15	H	11D	WHM	2	1	100	FNW	N	HE	CC	RS, TMPCT, CC
3025																							
733 3026	3 ML	7	38	8	0	53	1,694.00	NORTH	MO	3	10	20	H	528F	WHS	3	2	97	FNW	N	HE	CC	RS, R&W, CC
733 3026	3 TP	0	11	0	0	11	345.00	NORTH	MO	4	6	7	H	528F	WHS	3	4	85	FNW	N	RS	CC	RS, TMPCT, CC
733 3026	3 TP	0	27	0	0	27	847.00	NORTH	MM	3	5	8	H	11D	WHM	2	1	100	FNW	N	RS	CC	RS, TMPCT, CC
3026																							
740 4006	3 ML	19	0	3	0	22	597.00	SOUTH	PR	4	20	30	H	29EF	WHC	1	4	64	FNW	N	RS	CC	RS, CC
740 4006	3 ML	34	0	2	0	36	932.00	SOUTH	PR	3	15	30	H	29EF	WHC	1	2	64	FNW	N	RS	CC	RS, R&W, CC
4006																							
735 5008	3 SV	0	22	0	0	22	690.00	WEST	PR	2	7	11	H	528D	WHS	2	4	85	FNW	N	RS	CC	RS, TMPCT, CC
735 5008	3 ML	0	40	0	0	40	1,254.00	WEST	PR	1	6	10	H	28	CCS	1	2	81	FNW	N	SL	CC	PB, PLANT(RC&YC), S
5008																							

SILVICULTURE DIAGNOSIS - ALTERNATIVE #6

VCU T#	L RL ST U EU D VD	V O L	V O L	V O L	V O L	C4	C5	C6	C7	TOTAL ACRES	VOLUME	ASPECT	VQO	E	P	MIN	MAX	T WH	I SN	R I	M ID	PH	LE	AE	PROPOSED		FUTURE MANAGEMENT											
																									SMU	CODE	ECO	M	C	T	WET	AA	OT	RT	GH	VH	RS	CC
735 5022	3 SV	7	0	0	0	7	175.00	NORTH	PR	2	5	6	H	540	WHS	2	4	90	FNW	N	HL	CC	RS, IMPCT, CC															
735 5024	3 SV	6	33	7	0	46	1,472.00	WEST	PR	3	5	9	H	29EF	WHS	1	3	72	FNW	N	SL	CC	RS, R&W, CC															
735 5024	3 SV	0	0	21	0	21	861.00	WEST	PR	3	6	9	H	550D	CCD	3	2	69	FW	N	RS	CC	RS, R&W, CC															
5024		6	33	28	0	67	2,333.00																															
735 5025	3 SV	7	0	0	0	7	175.00	NORTH	PR	2	6	7	H	51C	WHS	1	2	70	FW	N	HL	CC	RS, CC															
735 5025	3 SV	0	7	0	0	7	220.00	NORTH	PR	2	11	11	H	19D	WHS	2	1	65	FW	N	HL	CC	RS, IMPCT, CC															
735 5025	3 SV	1	10	0	0	11	339.00	NORTH	PR	2	11	11	H	19D	WHS	2	1	65	FW	N	HL	CC	RS, IMPCT, CC															
735 5025	3 ML	8	0	0	0	8	200.00	NORTH	MO	2	4	7	H	528D	WHS	2	4	85	FNW	N	RS	CC	RS, IMPCT, CC															
5025		16	17	0	0	33	934.00																															
735 5026	3 SV	1	25	0	0	26	810.00	NORTH	MM	2	6	11	H	540	WHS	2	4	90	FNW	N	RS	CC	RS, IMPCT, CC															
735 5026	3 TP	0	8	0	0	8	251.00	NORTH	MM	2	4	6	H	540	WHS	2	4	90	FNW	N	HL	CC	RS, IMPCT, CC															
735 5026	3 SV	0	9	0	0	9	283.00	NORTH	MM	2	4	5	H	25	CMM	1	3	71	SEC	N	HL	CC	RS, CC															
735 5026	3 SV	0	9	0	0	9	283.00	NORTH	MM	2	4	6	H	540	WHS	2	4	88	FNW	N	HL	CC	RS, IMPCT, CC															
735 5026	3 SV	0	6	0	0	6	188.00	NORTH	MM	2	2	4	H	540	WHS	2	4	90	FNW	N	HL	CC	RS, IMPCT, CC															
5026		1	57	0	0	58	1,815.00																															
735 5027	3 TP	0	6	0	0	6	188.00	NORTH	MM	2	6	6	H	540	WHS	2	4	90	FNW	N	RS	CC	RS, IMPCT, CC															
735 5027	3 TP	0	12	0	0	12	376.00	NORTH	MM	2	4	7	H	540	WHS	2	4	90	FNW	N	RS	CC	RS, IMPCT, CC															
735 5027	3 TP	0	12	0	0	12	376.00	NORTH	MM	2	4	6	H	540	WHS	2	3	77	FNW	N	RS	CC	RS, R&W, CC															
735 5027	3 SV	0	16	0	0	16	502.00	NORTH	MM	2	6	8	H	540	WHS	2	4	90	FNW	N	RS	CC	RS, IMPCT, CC															
735 5027	3 SV	0	18	0	0	18	564.00	NORTH	MM	2	8	11	H	540	WHS	2	4	90	FNW	N	HL	CC	RS, IMPCT, CC															
735 5027	3 SV	0	8	0	0	8	251.00	NORTH	MM	2	8	12	H	540	WHS	2	4	90	FNW	N	HL	CC	RS, IMPCT, CC															
735 5027	3 SV	0	31	0	0	31	972.00	NORTH	PR	2	9	15	M	25	CMM	1	4	85	SEC	N	SL	CC	RS, R&W, CC															
5027		0	103	0	0	103	3,229.00																															
735 5028	3 SV	0	21	0	0	21	659.00	NORTH	PR	2	2	5	H	19D	WHS	2	1	65	FW	N	SL	CC	RS, IMPCT, CC															
735 5029	3 TP	0	8	0	0	8	251.00	EAST	MO	3	6	6	H	19E	WHS	3	2	76	FW	N	HL	CC	RS, CC															
735 5029	3 TP	1	2	0	0	3	88.00	EAST	MO	3	6	6	H	19E	WHS	3	2	76	FW	N	HL	CC	RS, CC															
735 5029	3 TP	7	0	0	0	7	175.00	EAST	MO	2	3	3	H	540	WHS	2	4	90	FNW	N	HL	CC	RS, IMPCT, CC															
735 5029	3 SV	13	1	0	0	14	356.00	EAST	MO	2	2	4	H	540	WHS	2	4	82	FNW	N	HL	CC	RS, IMPCT, CC															
5029		21	11	0	0	32	870.00																															
735 5030	3 TP	11	6	0	0	17	463.00	NORTH	MM	3	3	4	H	33E	CCS	3	4	80	FW	N	SL	CC	RS, IMPCT, CC															

SILVICULTURE DIAGNOSIS - ALTERNATIVE #6

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H AU RN VI EI ST VCU T#	L RL U EU D VD	V O L	V O L	V O L	V O L	V O L	C4	C5	C6	C7	TOTAL ACRES	VOLUME MMBF	ASPECT	VQO	P	MIN ELEV	MAX ELEV	SHU DW	ECO CODE	M I	M C	M G	SN ID	I TE	WET HAB	R RB	M GH	LE OT	HM AE RT VH	PROPOSED FUTURE MANAGEMENT
735 5031	3 ML	0	2	0	0	0	0	0	0	0	2	63.00	EAST	PR	2	3	4	H	5280	WHS	2	4	85	FNW	N	HL	CC			RS, TMPCT, CC
735 5032	3 ML	0	12	0	0	0	0	0	0	0	12	376.00	EAST	PR	2	3	5	H	5280	WHS	2	4	88	FNW	N	RS	CC			RS, TMPCT, CC
735 5032	3 ML	0	9	0	0	0	0	0	0	0	9	283.00	EAST	PR	2	6	6	H	540	WHS	2	4	90	FNW	N	HL	CC			RS, TMPCT, CC
735 5032	3 ML	0	6	0	0	0	0	0	0	0	6	188.00	EAST	PR	1	9	9	H	19C	WHS	2	1	65	FW	N	HL	CC			RS, TMPCT, CC
735 5032	3 SV	0	9	0	0	0	0	0	0	0	9	283.00	EAST	PR	3	7	9	H	18E	CCD	4	1	80	FW	N	HL	CC			RS, CC
735 5032	3 ML	0	5	0	0	0	0	0	0	0	5	157.00	EAST	PR	2	6	6	H	540	WHS	2	4	90	FNW	N	HL	CC			RS, TMPCT, CC
735 5032	3 ML	0	3	0	0	0	0	0	0	0	3	95.00	EAST	PR	3	10	10	H	18E	CCD	4	1	80	FW	N	HL	CC			RS, CC
735 5032	3 ML	0	8	0	0	0	0	0	0	0	8	251.00	EAST	PR	2	4	4	H	5280	WHS	2	4	85	FNW	N	HL	CC			RS, TMPCT, CC
735 5032	3 ML	0	5	0	0	0	0	0	0	0	5	157.00	EAST	PR	2	3	3	H	5280	WHS	2	4	85	FNW	N	HL	CC			RS, TMPCT, CC
5032		0	57	0	0	0	0	0	0	0	57	1,790.00																		
735 5033	3 ML	0	6	0	0	0	0	0	0	0	6	188.00	EAST	PR	2	4	4	H	540	WHS	2	4	90	FNW	N	HL	CC			RS, TMPCT, CC
735 5033	3 ML	0	7	0	0	0	0	0	0	0	7	220.00	EAST	PR	2	4	4	H	540	WHS	2	4	90	FNW	N	HL	CC			RS, TMPCT, CC
5033		0	13	0	0	0	0	0	0	0	13	408.00																		
735 5034	3 ML	0	21	0	0	0	0	0	0	0	21	659.00	SOUTH	PR	2	5	8	H	540	WHS	2	4	85	FNW	N	RS	CC			RS, CC
735 5035	3 ML	24	12	0	0	0	0	0	0	0	36	976.00	EAST	PR	3	15	30	H	528E	WHS	3	4	75	FNW	N	HE	CC			RS, R&W, CC
735 5036	3 ML	0	4	0	0	0	0	0	0	0	4	125.00	NORTH	PR	2	9	9	H	5280	WHS	2	4	85	FNW	N	HL	CC			RS, TMPCT, CC
735 5036	3 ML	0	11	0	0	0	0	0	0	0	11	345.00	NORTH	PR	2	9	9	H	5280	WHS	2	4	85	FNW	N	HL	CC			RS, TMPCT, CC
735 5036	3 ML	32	48	0	0	0	0	0	0	0	80	2,303.00	NORTH	PR	2	15	30	M	25	CMM	1	3	64	SEC	N	HE	SW			FH, RS, R&W, 2-SW
5036		32	63	0	0	0	0	0	0	0	95	2,773.00																		
735 5037	3 ML	5	40	0	0	0	0	0	0	0	45	1,378.00	NORTH	PR	4	15	20	H	29EF	WHS	1	5	65	FNW	N	HE	CC			RS, CC
735 5038	3 ML	11	50	0	0	0	0	0	0	0	61	1,843.00	NORTH	PR	3	4	9	H	29EF	WHS	1	4	70	FNW	N	HE	CC			RS, R&W, CC
736 6002	4 ML	9	13	0	0	0	0	0	0	0	22	633.00	NORTH	PR	2	3	5	H	30	WDC	2	1	89	FNW	N	HL	CC			RS, CC
736 6002	4 ML	1	5	0	0	0	0	0	0	0	6	183.00	NORTH	PR	2	2	2	H	30	WDC	2	1	100	FNW	N	HL	CC			RS, TMPCT, CC
736 6002	4 ML	3	6	0	0	0	0	0	0	0	9	263.00	NORTH	PR	2	2	3	H	30	WDC	2	1	100	FNW	N	HL	CC			RS, TMPCT, CC
736 6002	4 ML	6	1	0	0	0	0	0	0	0	7	182.00	NORTH	PR	2	2	3	H	30	WDC	2	1	100	FNW	N	HL	CC			RS, TMPCT, CC
6002		19	25	0	0	0	0	0	0	0	44	1,261.00																		
736 6003	4 ML	0	45	0	0	0	0	0	0	0	45	1,411.00	EAST	PR	3	9	20	M	4E	CCD	3	1	74	FW	N	HE	SW			FH, RS, R&W, 2-SW
736 6003	4 ML	0	27	0	0	0	0	0	0	0	27	847.00	EAST	PR	3	12	15	M	4E	CCD	3	1	70	FW	N	HE	SW			FH, RS, R&W, 2-SW
6003		0	72	0	0	0	0	0	0	0	72	2,258.00																		

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738 8015	4 TP	4	0	0	0	0	0	0	0	4	100.00	WEST	MM	2	8	9	H	1D	WDC	2	1	94	FNW	N	HL	CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC	RS,CC

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VCU T#	L RL U EU D VD	V O L	V O L	V O L	V O L	V O L	TOTAL C7 ACRES	VOLUME MMBF	ASPECT	VQO	P	S L	MIN ELEV	MAX ELEV	NO DW	T WH	IR	ECO	CODE	M	I	R	M	LE	AE	RT	VH	PROPOSED		FUTURE MANAGEMENT	
																												RS	CC	RS	CC
739 9002	3 ML	0	19	0	0	0	19	596.00	SOUTH	MO	2	3	5	H	540					WHS	2	4	90	FNW	N	RS	CC			RS, WLPCT, CC	
739 9003	3 ML	13	12	0	0	0	25	701.00	SOUTH	MO	1	2	4	H	1C					WDC	1	3	81	FNW	N	SL	CC			RS, R&W, CC	
739 9019	3 TP	0	14	0	0	0	14	439.00	EAST	MO	4	4	6	H	2E					WDC	2	4	85	FNW	N	RS	CC			RS, TMPCT, CC	
739 9019	3 TP	0	13	0	0	0	13	408.00	EAST	MO	3	5	7	M	2E					WDC	2	1	100	FNW	N	HL	CC			RS, TMPCT, CC	
739 9019	3 TP	0	5	0	0	0	5	157.00	EAST	MO	3	2	8	H	2E					WDC	2	1	100	FNW	N	RS	CC			RS, TMPCT, CC	
739 9019	3 TP	0	6	0	0	0	6	188.00	EAST	MO	3	2	8	H	2E					WDC	2	1	100	FNW	N	RS	CC			RS, TMPCT, CC	
9019		0	38	0	0	0	38	1,192.00																							
739 9021	3 TP	0	15	0	0	0	15	471.00	SOUTH	PR	2	3	5	M	3D					WDC	2	1	100	FNW	N	HL	CC			RS, WLPCT, CC	
739 9021	3 TP	0	5	0	0	0	5	157.00	SOUTH	PR	2	4	4	M	3D					WDC	2	1	100	FNW	N	HL	CC			RS, WLPCT, CC	
739 9021	3 TP	4	1	0	0	0	5	132.00	SOUTH	PR	2	4	4	M	3D					WDC	2	1	100	FNW	N	HL	CC			RS, WLPCT, CC	
9021		4	21	0	0	0	25	760.00																							
739 9022	3 TP	18	13	0	0	0	31	858.00	EAST	PR	4	15	20	M	528F					WHS	3	4	85	FNW	N	HE	CC			RS, CC	
739 9022	3 TP	1	9	6	0	0	16	554.00	EAST	PR	3	5	6	M	528F					WHS	3	3	91	FNW	N	SL	CC			RS, CC	
9022		19	22	6	0	0	47	1,412.00																							
739 9026	3 TP	14	1	0	0	0	15	382.00	WEST	MM	3	0	15	M	53E					WHS	3	1	100	FNW	N	RS	CC			RS, TMPCT, CC	
739 9026	3 TP	13	0	0	0	0	13	325.00	WEST	MM	3	0	15	M	53E					WHS	3	1	100	FNW	N	RS	CC			RS, TMPCT, CC	
739 9026	3 TP	10	0	0	0	0	10	250.00	WEST	MM	3	15	15	M	53E					WHS	3	1	100	FNW	N	RS	CC			RS, TMPCT, CC	
9026		37	1	0	0	0	38	957.00																							
739 9028	3 TP	0	23	0	0	0	23	722.00	WEST	MM	3	2	4	H	10					SSR	1	1	98	FNW	Y	HL	CC			PLANT(S), SS, CC	
739 9031	3 TP	0	25	2	0	0	27	867.00	EAST	MM	1	7	9	M	25					CMM	1	1	62	SEC	N	RS	CC			RS, R&W, CC	
739 9031	3 TP	0	12	0	0	0	12	376.00	EAST	MM	2	8	9	M	180					CCD	3	2	81	FW	N	RS	CC			RS, R&W, CC	
739 9031	3 TP	0	13	0	0	0	13	408.00	EAST	MM	3	10	11	M	528E					WHS	3	4	85	FNW	N	RS	CC			RS, TMPCT, CC	
9031		0	50	2	0	0	52	1,651.00																							
739 9037	3 TP	0	21	0	0	0	21	659.00	EAST	MM	3	8	10	M	11E					WHC	3	1	100	FNW	N	HL	CC			RS, TMPCT, CC	
739 9040	3 TP	0	7	0	0	0	7	220.00	WEST	PR	4	7	8	M	3F					WDC	3	1	100	FNW	N	RS	CC			RS, WLPCT, CC	
739 9040	3 TP	3	12	2	0	0	17	534.00	WEST	PR	4	8	10	M	3F					WDC	3	1	100	FNW	N	RS	CC			RS, TMPCT, CC	
739 9040	3 TP	0	15	1	0	0	16	512.00	WEST	PR	4	9	10	M	3F					WDC	3	1	100	FNW	N	RS	CC			RS, TMPCT, CC	
9040		3	34	3	0	0	40	1,266.00																							

[illegible]

Appendix I

Sale Area Improvements/KV Opportunities

Ketchikan Area

Ketchikan Pulp Company Long-Term Sale

North Revilla Project Area

Recommended Sale Area Improvement Projects

I. ESSENTIAL REFORESTATION**A. Natural Regeneration Surveys**

Objective/Justification: Monitor the occurrence of natural regeneration stocking following timber harvest. The National Forest Management Act of 1976 states that "It is the policy of Congress that all forested lands in the National Forest system shall be maintained in appropriate forest cover with species of trees, degree of stocking, rate of growth, and condition of stand designed to secure the maximum benefits of multiple use sustained yield management in accordance with land management plans".

Treatment: Stocking surveys shall be conducted three growing seasons following harvest to assure that satisfactory levels of natural stocking have been achieved as prescribed in the stocking level guides, Chapter 9, FSH 2409.17. The reporting and record keeping required to track and monitor the harvesting, regeneration, certification process is included in the regeneration survey costs.

Needs/Cost: Conduct natural regeneration stocking surveys at a direct cost of \$8.50/acre. See the enclosed detailed listing of stands in need of surveys by alternative.

$$\$8.50/\text{acre} \times 1.04^5 (1.22) = 10.37 \times 1.3798(\text{OH}) = \$14.31/\text{acre}$$

Work Summary:Regeneration
Surveys

Alternative #2	\$14.31 acre	8,222 acres	\$117,657 cost
Alternative #3	\$14.31 acre	5,308 acres	\$ 75,957 cost
Alternative #4	\$14.31 acre	6,521 acres	\$ 93,316 cost
Alternative #5	\$14.31 acre	6,648 acres	\$ 95,133 cost
Alternative #6	\$14.31 acre	6,202 acres	\$ 88,751 cost

B. Cone Collection

Objective/Justification: Collect an adequate amount of tree seed from the appropriate seed zones to accomplish required artificial regeneration under this plan. All seed will be collected from phenotypically superior trees which exhibit desirable characteristics such as form, height, branch angle, resistance to insects and disease, etc. Ketchikan Area has sufficient spruce seed on hand to meet its spruce planting needs. The Area, however, lacks seed for Alaska and western redcedar planting. Planting roughly 300 acres of cedar (western redcedar and Alaska yellow cedar) in all action alternatives will require (300 AC X 300 TPA) 90,000 seedlings. Approximately 40,000 seedlings can be produced per pound of clean seed. Therefore 2.25 pounds of clean seed or 11 bushels (5 bushels/lb seed) of cones must be collected.

Treatment: Cone collections will occur in moderate or good cone collecting years based on field surveys. Collections will be done by force account crews in the fall after the cones have matured. Collection will involve identifying phenotypically superior trees, felling the tree, picking and bagging the cones, tagging the bags and transporting the cones to Petersburg where the seed will be cleaned and stored until needed. Seed collections will be stratified by seed zones to make sure the planting stock is adapted to location where it will be planted.

Needs/Cost: Collect 11 bushels of seed from the appropriate seed zones at a direct cost of \$190.40/bushel.

$$\$190.40/\text{Bul} \times 1.04^2 (1.08) = \$205.63 \times 1.3798(\text{OH}) = \$283.73/\text{Bul}$$

Work Summary:

Cone

Collection

All Action

Alternatives	\$284/bushel	11 bushels	\$ 3,124 cost
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C. Planting

Objective/Justification: Planting will occur only on those sites where natural regeneration will not result in a fully stocked stand of desirable species within 5 years after harvest as required under the National Forest Management Act of 1976.

The requirements and guidelines for minimum acceptable stocking are listed in FSH 2409.17 Silvicultural Practices Handbook. Appendix A displays the harvest unit, acres and species to be planted on a site specific basis.

The sites to be planted fall under three general categories:

1. Floodplains and Alluvial Fans - These areas usually have deep well drained soils with poorly developed horizons due to periodic flooding. Mature stands rarely support more than 100-150 stems per acre. Species composition is primarily spruce growing on raised hummocks. Perturbation results in heavy brush (alder, salmonberry, and devils club) competition that will delay natural regeneration and suppress tree growth for a period of 20 to 50 years following harvest. The vast majority of the Tonowek and Tuxekan soil series have been excluded from harvesting in recent years, but small inclusions will be treated in this operating period. These sites will be planted with Sitka spruce.
2. Dense Brush or Inadequate Seed Source - Sparsely stocked sites with an established ground cover of dense vegetation such as salmonberry or devils club will retard stocking and growth for at least 20 years. Sites lacking a satisfactory seed source, including high elevation sites, sites adjacent to muskegs or lakes and immature stands where natural regeneration cannot be assured or even reasonably expected within 5 years after harvest. These sites will be planted with Sitka spruce.
3. Somewhat Poorly Drained to Poorly Drained Soils, Low Productivity Cedar Sites - These sites currently support decadent, low-quality sawtimber with cedar making up at least 10 percent of the canopy. Getting natural cedar regeneration on these sites is unlikely because:
 - a. Cedar has limited capabilities to disperse seed over long distances from the parent tree. Alaska-cedar seed dispersion is limited to 300-400 feet.
 - b. Alaska cedar is not a prolific seed producer. Cone crops are infrequent and germination rates are low.
 - c. Unlike "down-south" cedar, southeast Alaska cedar display a greater degree of intolerance to shade. Local cedar is unable to regenerate under its own canopy and advance cedar reproduction is generally absent on the forest floor.
 - d. Low-volume cedar stands often result in heavy slash accumulation which can inhibit natural reproduction.

APPENDIX I

Prescribed burning may be required to lower slash levels for planting ease.

Therefore, planting of western redcedar and/or Alaska-cedar to improve productivity and maintain tree species diversity, shall be addressed in the silvicultural prescription for cedar stands.

"Relationship of Forest Plant Association to Soils Series...Ketchikan Area" tables, which are found in the back of Preliminary Forest Plant Association Management Guide, Ketchikan Area, was used to identify potential sites.

Treatment: Floodplains/alluvial fans and dense shrub/inadequate seed source planting areas will be planted with 1-0 Sitka spruce stock. The low productivity/Cedar sites will be planted with 1-0 western redcedar or Alaska-cedar as specified in Appendix A. Generally a mixture of western redcedar and Alaska yellow cedar will be planted on sites below 800 feet in elevation on North and East Aspects, and below 1000 feet on South and West aspects. Cedar sites with elevations above those listed have been scheduled for Alaska yellow cedar planting only.

Needs/Cost: The direct cost of planting is \$330.00 per acre. See enclosed detailed listing of stands requiring treatment/alternative.

$$\$330.00/\text{acre} \times 1.04^3 (1.13) = \$372.90 \times 1.3798(\text{OH}) = \$514.53/\text{acre}$$

Work Summary:

Planting

Alternative #2	\$515/acre	363 acres	\$186,945 cost
Alternative #3	\$515/acre	461 acres	\$237,415 cost
Alternative #4	\$515/acre	363 acres	\$186,945 cost
Alternative #5	\$515/acre	520 acres	\$267,800 cost
Alternative #6	\$515/acre	474 acres	\$244,110 cost

D. Plantation Survival Surveys

Objective/Justification: Monitor the survival and condition of planted trees one and three growing seasons following planting and certify that minimum stocking levels are achieved per NFMA.

Treatment: Establish and survey plantation survival stake rows the first and third growing seasons following planting. The third year survey will also determine the overall stocking, both planted and established natural regeneration.

Needs/Cost: First and third year survival surveys will be required at a direct cost of \$14.00 per acre. See enclosed detailed listing of stands needing surveys by alternative.

$$\$14.00/\text{acre} \times 1.04^4 (1.17) = \$12.43 \times 1.3798(\text{OH}) = \$22.60/\text{acre}$$

Work Summary:

Plantation Survival Surveys

Alternative #2	\$23/acre	363 acres	\$ 8,349 cost
Alternative #3	\$23/acre	461 acres	\$10,603 cost
Alternative #4	\$23/acre	363 acres	\$ 8,349 cost
Alternative #5	\$23/acre	520 acres	\$11,960 cost
Alternative #6	\$23/acre	474 acres	\$10,902 cost

E. Site Preparation

Objective/Justification: Prescribed burning for site preparation has limited application in Southeast Alaska. Incidences where prescribed burning is a useful silvicultural tool is:

1. When planting is prescribed and slash levels, particularly in cedar stands, must be reduced to clear planting spots and provide planting crew access onto the planting site.
2. When removal of advance hemlock regeneration or hemlock residuals is desirable because they are infected with dwarf mistletoe, or hemlock fluting is a concern and it would be prudent to convert the stand to mostly spruce.

Treatment: Prior to implementing a prescribed burn a silvicultural prescription, verified by an on-site visit (prior to harvest and after the unit is harvested) will be prepared by a certified silviculturist. A prescribed burning plan, which contains a fuels analysis, a certified burning prescription designed to meet the specified objectives, etc., will be prepared prior to burning. Specified harvest units will be prescribe burned within 3 years following harvest.

Prescribed burning for natural regeneration is not recommended until more is learned about natural regeneration and burning. Past experience has shown that minimum stocking levels may not be achieved within 5 years through natural regeneration alone. Planting shall follow prescribed burning treatments.

Needs/Cost: Prescribed burning prior to planting of western red cedar or Alaska-cedar Direct cost estimate is \$110.00 per acre. See enclosed detailed listing of potential prescribed burning acres.

From previous prescribed-burning programs, \$110.00/acre X 1.04²
(1.08) = \$118.80 X 1.3798(OH) = \$163.93/acre

Work Summary:

Prescribe Burning

Alternative #2	\$164/acre	154 acres	\$25,256 cost
Alternative #3	\$164/acre	126 acres	\$20,664 cost
Alternative #4	\$164/acre	99 acres	\$16,236 cost
Alternative #5	\$164/acre	182 acres	\$29,848 cost
Alternative #6	\$164/acre	125 acres	\$20,500 cost

F. Release and Weed

Objective/Justification: Remove high numbers of poor form or diseased submerchantable hemlock whips.

Soil prescriptions for units call for partial suspension on high mass movement index MMI = 4 soils during yarding operations (very high mass movement index MMI=4 soils are no longer considered suitable). In some cases, many undesirable residuals remain standing following partial or full suspension yarding. Hemlock residuals diseased with mistletoe can reinfect the new regeneration if they are allowed to remain in the stand. Residuals are often of poor form, may contain heart rot, or are damaged during logging and therefore, rarely contribute to the volume of the new stand. When in great numbers, residuals will compete for growing space and can result in a loss in volume at the end of the next rotation.

Region 10 has no contractual requirement for the logger to sever residual trees. Removing hemlock residuals in a precommercial thinning treatment has not been all that successful because of widely fluctuating funding and targets.

Treatment: Sever the hemlock residuals following harvest. As a rule, about 20 percent of the acres, which require partial or full suspension, will need residuals severed. Treatment of less than 5 acres per site was not considered economically feasible and was therefore not scheduled.

Stands likely needing release and weeding are listed by alternative.

Needs/Cost: Hemlock residuals will require severing of mistletoe infected stems at a direct cost of \$121.12 per acre.

$$\$121.12/\text{ac.} \times 1.4^3 (1.13) = 136.87 \times 1.3798(\text{OH}) = \$188.85$$

Work Summary:

Release

Alternative #2	\$189/acre	358 acres	\$ 67,662 cost
Alternative #3	\$189/acre	241 acres	\$ 45,549 cost
Alternative #4	\$189/acre	291 acres	\$ 54,999 cost
Alternative #5	\$189/acre	242 acres	\$ 45,738 cost
Alternative #6	\$189/acre	287 acres	\$ 54,243 cost

II. MITIGATION

A. Debris Slides Stabilization and Rehabilitation and Debris Slide Rehabilitation Monitoring

Objective/Justification: Stabilize and rehabilitate harvest-activity initiated landslides within units and along roads which are no longer the responsibility of the purchaser to treat.

Approximately one debris slide, 5 acres or larger, occurs for every 2,240 harvested acres Tongass wide (DEIS Tongass Land Management Plan Revision, June 1990). If slides smaller than 5 acres are included, than the number of debris slides occurring for every 2,240 harvested acres would increase one and one half fold. Average size of slides on the Ketchikan Area are 5 acres (Loggy 1974).

The majority of these slides normally occur within a 5 to 10 year period after cutting or roading from the following combined impacts:

1. Over steepen side slopes,
2. Storms with high wind and /or intensive rain fall, and
3. Where roots of severed trees have lost their holding strength in 3 to 5 years.

Approximately 5,769 to 8,585 acres are proposed for harvest this period. This would equate to 2.6 to 3.8 natural slides or 4 to 6 slides with harvest. At 5 acres per slide this would equate to 20 - 30 acres of soil disturbance that would need stabilizing and rehabilitation.

Treatment: Slides that have occurred will be rehabilitated with introduced grasses and/or herbaceous vegetation. Follow up monitoring will be done for two (2) years after initial rehabilitation to insure stabilization has been accomplished.

The treatment is to stabilize surface soil erosion to prevent or reduce further sediment introduction into streams and/or lost in soil productivity of the remaining soil on the slide trace.

Needs/Cost: Stabilize 30 acres of landslides at a direct cost of \$1200 per acre. Monitor each stabilized landslide for 2 years after initiation stabilization at \$150 per slide, per year.

$\$1,200/\text{ac.} \times 1.04^6 (1.27) = 1,524 \times 1.3798(\text{OH}) = \$2,102.82/\text{ac.}$

$\$300/\text{ea.} \times 1.04^6 (1.27) = 381 \times 1.3798(\text{OH}) = \$525.70/\text{slide}$

Work Summary: All Alternatives use 6 slides and 30 acre estimate.

Slide Rehabilitation	\$2,103/acre	30 acres	\$ 63,090 cost
Monitor stabilized	\$ 526/slide	6 slides	\$ 3,156 cost

B. Wildlife Seeding of Roads - 50 Acres

Objective/Justification: This project is consistent with Regional and Forest direction to maintain or enhance wildlife habitat capability. The Long-Term Sale FEIS prescribed wildlife seeding as a mitigation measure.

The objective is to increase forage production within and adjacent to harvest units to benefit Sitka Black-tailed Deer, Black Bear, Blue Grouse, Dusky and Vancouver Canada Geese, and successional nongame birds.

Treatment: Ketchikan Pulp Co. is responsible for seeding all temporary roads and landings used during the current operating period. However, we anticipate that there will be some seeding failures. Therefore, treatment will include re-seeding of temporary roads, and landings where initial seeding attempts failed; and seeding specified roads, which have been closed to vehicle access. Seed mixture will contain birds-foot Trefoil 12#/ac, Vetch 12#/ac, Panic Grass 8#/ac, Reed Canary Grass 8#/ac, and Alta Fescue 6#/ac, or a mixture of other plants.

System roads designated for closure and wildlife forage seeding are displayed in the North Revilla DEIS under transportation.

Needs/Costs: The direct cost for hand seeding is \$300 per acre. $\$300/\text{acre} \times 1.04^2 (1.08) = \$324/\text{acre} \times 1.3798(\text{OH}) = \$447/\text{acre}$

Approximately 50 acres will be treated under all of the action alternatives

Work Summary:

Wildlife Seeding	\$447/acre	50 acres	\$22,350 cost
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III. MAINTENANCE

A. ~~Precommercial~~ Thinning for Wildlife -

Objective/Justification: This project is consistent with Regional and Forest direction to maintain wildlife habitat capability. The North Revilla DEIS prescribed precommercial thinning of stands as a mitigation measure.

Precommercial thinning will delay crown closure and ultimately will prolong the existence of understory vegetation. Normal precommercial thinning to a 12'x12' spacing will delay crown closure and eventual loss of understory to approximately stand age of 35-40 years. Crown closure in unthinned stands occurs about stand age of 20 years. The objective of "wildlife thinning" is to delay crown closure even for longer periods by thinning to wider spacings of up to 16x16 feet. Complete crown closure does not occur for 16x16 foot spacing until approximately 50 years of stand age (SI = 110 for 100 yr.).

The forage is intended to benefit Sitka Black-tailed Deer and Black Bear, with secondary benefits to Timber Wolves, Pine Marten, and successional bird species.

Treatment: Second-growth timber release is prescribed for 12-18 year old stands within important deer/bear habitat. Thinning will be done throughout the unit at a spacing of 12x12 feet to 16x16 feet dependent on the species of forage to be released within the second-growth stand. Prescriptions calling for spacings of 16x16 feet or more shall weigh the wildlife benefits against estimated volume loss of 10-12 percent, extended rotation time, and loss of wood quality due to the large limbs.

Residual trees will not be girdled unless the trees are mistletoe infested that will infect the second growth or are of very poor form. Some critical second-growth stands will have 5 percent of the units left unthinned to provide thermal cover for Sitka Black-tailed Deer and Pine Marten.

The southerly and westerly facing candidate stands proposed for wildlife habitat precommercial thinning are listed below.

Needs/Costs: The direct cost of the project is \$340.09 per acre.

$$\$340.09/\text{acre} \times 1.04^5 (1.22) = 414.91 \times 1.3798(\text{OH}) = \$572.49/\text{acre}$$

Work Summary:

Precommercial			
Thinning	\$572/acre	1925 acres	\$1,101,100.00cost

High Priority Stands: (South/West Aspects <800' elevation)

Stand Number	Total Acres	Stand Number	Total Acres
-----	-----	-----	-----
73305 67	12.46	73901 124	106.24
73602 74	37.23	73905 86	25.71
73602 76	100.00	73906 77	34.27

Medium Priority Stands: (South/West Aspects <1500' elevation)

Stand Number	Total Acres	Stand Number	Total Acres
-----	-----	-----	-----
73301 59	106.98	73903 69	54.51
73305 66	125.61	73904 89	27.85
73602 75	159.38	73904 90	53.93
73603 137	44.47	73904 94	111.59
73701 124	70.84	73905 87	91.00
73801 68	36.55	73906 73	21.32
73901 120	55.02	73906 74	81.76
73901 121	66.25	73906 75	103.71
73901 122	118.30	73906 76	33.09
73902 45	247.13		

B. Precommercial Thinning

Objective/Justification: The objectives of precommercial thinning is: (1) Increase timber yields by delaying the occurrence of competition for growing space between fast growing young trees. The site's wood growing potential is distributed over a few trees instead of many. This results in larger diameter steams over a shorter time

span. (2) Increase the stand's spruce composition and ultimate yield and value through favoring spruce as future crop trees. (3) Remove the deformed, diseased trees. (4) And, prolong the understory vegetation for wildlife use by delaying crown closure.

Second-growth stands in southeast Alaska suffer from excessive competition for light because of large number of young trees that invade a clearcut. Because hemlock and spruce are shade tolerant, the young stands have low mortality rates and trees do not express strong dominance in the first half of a rotation. Significant natural thinning through competition occurs late in the stand's life. Precommercial thinning will result in larger diameter trees over a shorter time period, increase sawlog yields about 10-12 per cent, and reduce the economic rotation length by 10-20 years.

Treatment: Precommercial Thinning will occur in stands of 15-20 years of age. Crop tree spacing will generally be 12x12 feet but can vary according to the silviculture prescription. Stands planned for treatment are listed below.

Needs/Costs: The direct cost of the project is \$289.68 per acre.

$$\$340.09/\text{ac.} \times 1.04^5 (1.22) = 414.91 \times 1.3798(\text{OH}) = \$572.49/\text{ac.}$$

Work Summary:

Precommercial

Thinning \$572/acre 1,710 acres \$ 978,120.00 cost

Timber PCT Stands: (High/Medium productivity sites 15-20 years old not scheduled for wildlife thinning.

Stand Number	Total Acres	Stand Number	Total Acres
-----	-----	-----	-----
73301 61	12.46	73901 125	89.57
73301 62	37.23	73901 128	186.83
73501 39	100.00	73901 129	93.12
73601 48	106.98	73901 131	79.80
73603 127	125.61	73903 67	26.31
73603 130	159.38	73903 68	77.97
73603 131	44.47	73903 70	45.22
73603 132	70.84	73903 71	55.97
73701 126	36.55	73904 91	64.01
73701 127	55.02	73904 92	32.49
73801 71	135.34	73904 93	120.33
73901 123	23.14		

IV. IMPROVEMENT

A. Fish Habitat Enhancement/Monitoring: Margaret Creek Fish Pass (KRD)

Objective/Justification: The KV funded Margaret Creek Fish Pass was constructed in 1989 and started operations in 1990. During the planning process, AGF&G raised concerns around the monitoring of the project. Questions that needed answering were: (1.) What would be the impact to the resident fish with the introduction of salmon into the stream system? (2.) What levels of returning salmon would result from the installation of the fish pass?

These concerns were addressed in the Margaret Creek Fish Pass decision memo, which was signed April 18, 1989. The decision memo stated that: "The Forest Service will be responsible for future monitoring of the resident fish populations, adult salmon returns, and contracting to ADF&G acoustical surveys. ADF&G will establish self sustaining runs of coho and sockeye salmon. A memorandum of understanding (MOU) will be initiated to finalize agency involvement."

To meet the concerns over monitoring, in May 1989, the Forestry Sciences Laboratory began a study of the resident salmonid species in Margaret Lake to establish base line conditions prior to the introduction of sockeye salmon fry into the lake and the completion of the fish ladder. The study was expanded in 1990 to include the distribution of cutthroat trout and Dolly Varden char and their uses of stream habitat in the primary tributary of Margaret Lake and a study of the zooplankton populations that serve as the primary food source for juvenile salmonids in the lake.

With the start up of the fish pass operation in 1990, additional monitoring of the effectiveness of the fish pass began. Monitoring included:

1. Identification of species and numbers of anadromous salmonids moving up the ladder.
2. Determination of the timing and duration of the adult returns.
3. Counting the number of smolt of sockeye and coho leaving the lake/stream system.
4. Determination of the smolt and pink salmon fry survival during migration over the 23 foot falls in lower Margaret Creek.

The results from the monitoring and study will provide the first quantitative evaluation of a fish ladder project and an introduction of sockeye salmon into a lake and their effect on resident salmonid populations. At present, there is no data that identify critical factors which determine the success or failure of fish ladder projects that introduce anadromous salmonids into a non-anadromous lake/stream system. This same project is listed on the 1989-94 Longterm Sale KV Plan. Price fluctuations and effective purchaser credit may result in all or part of the project being unfunded through KV. Yearly updates (as required) will need to make sure that duplicate collections do not occur.

Treatment:

The answers being sought in this project will require a long-term study and monitoring effort. Intensive study will be needed in 1991-92 to provide sound data to which change will be measured against. Items which will be studied and monitored during this period include monthly sampling of cutthroat trout and Dolly Varden for numbers, growth, feeding and age structure; seasonal limnological sampling of zooplankton and phytoplankton populations; and to enumerate adult salmon migration up the fish ladder and beyond into the lake and stream sections of the Margaret system.

Less intensive monitoring will take place during 1993-96 where samples will be gathered on an annual basis or during the migration period. Intensive study and monitoring will resume in 1997 or some year after depending on funding and the results of the ongoing monitoring and study.

A detailed study plan can be obtained through Mason (Buck) Bryant at FSL in Juneau. Planning Record contains: 1. Decision Memo for Margaret Creek Fish Pass; 2. Memorandum of Understanding 91-001; 3. A Proposal for Continuing Studies; 4. Progress Report for 1990; and 5. Cost Estimate.

Needs/Cost: See Planning Record

Work Summary: Project Costs: (inflation and OH is included)

ADF&G	72,000 X 1.22 X 1.3798 (OH)	= 121,200
FORESTRY SCIENCES LAB.	539,200 X 1.13 X 1.3798 (OH)	= 907,670
DISTRICT COSTS	243,700 X 1.13 X 1.3798 (OH)	= 410,230

GRAND TOTAL PROJECT COST = 1,439,100

E. Margaret Creek Fish Pass and Trail Interpretive Sign (KRD)

Objective/Justification: To provide a trailhead sign and an interpretive sign for the Fish Pass Trail to the Margaret Lake fish pass.

In 1989, the Margaret Creek fish steep pass and connecting trail were constructed using K-V funds. July 1990, the fish pass was opened to pink and coho salmon. Sockeye fry were introduced into Margaret Lake starting in 1988 and the first return of adults is expected in 1991. Visits to the fish pass by sports fishing residents of Ketchikan is expected to increase as the runs of returning salmon increase over the next few years. Margaret Creek is about 30 water miles north of Ketchikan. This same project is listed on the 1989-94 Longterm Sale KV Plan. Price fluctuations and effective purchaser credit may result in all or part of the project being unfunded through KV. Yearly updates (as required) will need to make sure that duplicate collections do not occur.

Treatment: One sign will be placed at the trail head. A series of interpretive signs, depicting the life cycles of different salmon species, will be mounted at the fish pass viewing platform.

Needs/Cost: One GS-7 recreation technician for one week and one GS-5 recreation technician for two days to construct interpretive signs and place them on location.

1 hr helicopter @ \$500/hr	\$ 500.00
Personnel	740.00
Interpretive signs and monument	2,000.00
Trailhead sign	<u>300.00</u>
Total cost for 1990 is	\$3,540.00

Expected accomplishment year: 1992.

$\$3,540 \times 1.04^2 (1.08) \times 1.3798(\text{OH}) \$5,275$

Work Summary:

Interpretive Signs \$5,275/Proj	Project	\$5,275 cost
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Cost Breakdown Table

Page 1

Project Name	Personnel - Includes Contract Prep and Administration	Subsistence	Travel - FW, Helicopter, Boat, Vehicle, other	Other - Facilities, Equipment, Contracts, etc.	Rate (Cost/Unit) Total Expenses
I. ESSENTIAL REFORESTATION					
A. Natural Regeneration Surveys (3 & 5 Years)	\$ 4.88/Ac. <u>2/</u>	\$ 0.48	\$ 0.64	\$ 2.50 <u>3/</u>	\$ 8.50/Acre
B. Cone Collection	\$140.40/Bushel	\$ 0.00	\$10.00	\$ 40.00	\$190.40/Bushel
C. Planting	\$ 70.00/Ac.	\$ 0.00	\$50.00 <u>4/</u>	\$210.00 <u>5/</u>	\$330.00/Acre
D. Plantation Survival Surveys (1 & 3 Years)	\$ 8.00/Ac.	\$ 0.48	\$ 4.02	\$ 1.50	\$ 14.00/Acre
E. Site Preparation w/Prescribed Burning	\$ 25.00/Ac.	\$ 0.00	\$60.00 <u>6/</u>	\$ 25.00	\$110.00/Acre
F. Release & Weeding (Dwarf Mistletoe Sanitation)	\$ 50.00/Ac.	\$ 0.00	\$ 0.00	\$ 70.48 (contract)	\$121.00/Acre
II. MITIGATION					
A. Slide Stabilization Plus 2 Year Monitoring	\$200.00/Ac. \$200.00/Slide		(Helicopter) \$850.00 \$ 75.00	(Seed & Fert.) \$150.00 \$ 25.00	\$1,200/Acre \$ 300/Slide
B. Wildlife Road Seeding	\$191.00/Ac.		\$ 19.00	\$ 90.00	\$ 300/Acre

1/ A 15% facilities support charge not included in overhead calculations has been assigned here.

2/ Includes office and field work associated with surveys, plus database updates & record keeping.

3/ The prorated cost of reprocurring aerial photography necessary during the regeneration process & database updates

4/ Includes the cost of reprocurring aerial photography necessary during the regeneration process & database updates

5/ Includes the cost of the planting contract, seedlings, coolers, and other facilities.

6/ Includes the cost of personnel travel and helicopter use during the firing operation.

Cost Breakdown Table

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Project Name	Personnel - Includes Contract Prep and Administration	Subsistence	Travel - FW, Helicopter, Boat, Vehicle, other	Other - Facilities, Equipment, Contracts, etc.	Rate (Cost/Unit) Total Expenses
<u>III. MAINTENANCE</u>					
A. Wildlife Habitat Precommercial Thin	\$ 60.00/Ac.	\$ 0.40	\$ 2.65	\$277.40	\$340.09/Acre
B. Forest Health & Prod. Precommercial Thin	\$ 60.00/Ac.	\$ 0.40	\$ 2.65	\$277.40	\$340.09/Acre
<u>IV. IMPROVEMENTS</u>					
A. Margaret Creek Fish Pass	SEE PLANNING RECORD FOR DETAILED COST BREAKDOWN (including Inflation & OH)				
B. Margaret Creek Interpretive Sign	\$740.00/Proj.	\$ 0.00	\$500.00	\$2,300.00	\$3,540.00/Proj.

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HU2 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
2001	47	0.00	0.00	0.00	0.00	47
2002	27	20.00	20.00 (RC&YC)	20.00	0.00	7
2003	40	0.00	28.00 (YC)	28.00	0.00	12
2004	30	0.00	0.00	0.00	6.00	30
2005	49	0.00	0.00	0.00	0.00	49
2006	48	0.00	0.00	0.00	0.00	48
2007	4	0.00	0.00	0.00	0.00	4
3001	20	0.00	0.00	0.00	0.00	20
3002	27	0.00	0.00	0.00	0.00	27
3003	106	0.00	0.00	0.00	21.20	106
3004	145	0.00	0.00	0.00	0.00	145
3005	32	0.00	0.00	0.00	0.00	32
3006	119	0.00	0.00	0.00	0.00	119
3007	91	0.00	0.00	0.00	0.00	91
3008	49	0.00	0.00	0.00	9.80	49
3009	24	0.00	0.00	0.00	0.00	24
3010	50	0.00	0.00	0.00	0.00	50
3011	46	0.00	0.00	0.00	7.40	46
3012	64	0.00	0.00	0.00	5.60	64
3013	27	0.00	0.00	0.00	0.00	27
3014	18	0.00	0.00	0.00	0.00	18
3015	27	0.00	0.00	0.00	0.00	27
4002	57	0.00	0.00	0.00	9.60	57
4004	17	0.00	0.00	0.00	0.00	17
5001	73	0.00	0.00	0.00	5.00	73
5002	69	0.00	0.00	0.00	0.00	69
5003	13	0.00	0.00	0.00	0.00	13
5004	72	0.00	0.00	0.00	0.00	72
5005	15	0.00	0.00	0.00	0.00	15
5006	23	0.00	0.00	0.00	0.00	23
5007	46	0.00	0.00	0.00	9.20	46
5008	62	40.00	40.00 (RC&YC)	40.00	0.00	22
5009	24	0.00	0.00	0.00	0.00	24
5010	12	0.00	0.00	0.00	0.00	12
5011	88	0.00	0.00	0.00	13.40	88
5012	11	0.00	0.00	0.00	0.00	11
5013	46	0.00	0.00	0.00	6.00	46
5014	50	0.00	0.00	0.00	0.00	50
5015	4	0.00	0.00	0.00	0.00	4
5016	24	0.00	0.00	0.00	0.00	24
5017	66	0.00	0.00	0.00	0.00	66

APPENDIX I

NORTH REVILLA PROJECT AREA
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HU2 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
5018	73	0.00	0.00	0.00	7.20	73
5019	41	0.00	0.00	0.00	0.00	41
5020	13	0.00	0.00	0.00	0.00	13
5021	3	0.00	0.00	0.00	0.00	3
5022	7	0.00	0.00	0.00	0.00	7
5023	101	0.00	0.00	0.00	0.00	101
6001	24	0.00	0.00	0.00	0.00	24
6002	44	0.00	0.00	0.00	0.00	44
6003	72	0.00	0.00	0.00	0.00	72
6004	78	48.00	48.00 (RC&YC)	48.00	0.00	30
6005	24	0.00	0.00	0.00	0.00	24
6006	75	0.00	0.00	0.00	0.00	75
6007	48	0.00	0.00	0.00	0.00	48
6008	74	0.00	0.00	0.00	0.00	74
6009	61	0.00	0.00	0.00	0.00	61
6010	76	0.00	0.00	0.00	10.20	76
6011	49	0.00	0.00	0.00	0.00	49
6012	54	0.00	0.00	0.00	0.00	54
6013	56	0.00	10.00 (YC)	10.00	0.00	46
6014	39	0.00	0.00	0.00	0.00	39
6015	24	0.00	0.00	0.00	0.00	24
6016	30	0.00	0.00	0.00	0.00	30
6017	24	0.00	0.00	0.00	0.00	24
6018	24	0.00	0.00	0.00	0.00	24
6019	22	0.00	0.00	0.00	0.00	22
7001	66	0.00	0.00	0.00	8.20	66
7002	33	0.00	0.00	0.00	0.00	33
7003	37	0.00	0.00	0.00	0.00	37
7004	22	0.00	0.00	0.00	0.00	22
7005	26	0.00	0.00	0.00	0.00	26
7006	32	0.00	0.00	0.00	0.00	32
7007	16	0.00	0.00	0.00	0.00	16
7008	14	0.00	0.00	0.00	0.00	14
7009	45	0.00	0.00	0.00	0.00	45
7010	27	0.00	0.00	0.00	0.00	27
7011	27	0.00	0.00	0.00	5.40	27
7012	44	25.00	25.00 (RC&YC)	25.00	0.00	19
7013	45	0.00	0.00	0.00	0.00	45
7014	37	0.00	0.00	0.00	0.00	37
7015	13	0.00	0.00	0.00	0.00	13
7016	18	0.00	0.00	0.00	0.00	18

NORTH REVILLA PROJECT AREA
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HU2 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
7017	70	0.00	47.00 (YC)	47.00	0.00	23
7018	39	0.00	14.00 (YC)	14.00	0.00	25
7019	30	0.00	0.00	0.00	0.00	30
7020	18	0.00	0.00	0.00	0.00	18
7021	59	0.00	0.00	0.00	6.00	59
7022	32	0.00	0.00	0.00	0.00	32
7023	74	0.00	0.00	0.00	0.00	74
7024	26	0.00	0.00	0.00	0.00	26
7025	20	0.00	0.00	0.00	0.00	20
7026	69	0.00	0.00	0.00	0.00	69
7027	35	0.00	0.00	0.00	0.00	35
7028	14	0.00	0.00	0.00	0.00	14
7029	17	0.00	0.00	0.00	0.00	17
7030	44	0.00	0.00	0.00	0.00	44
7031	35	0.00	0.00	0.00	0.00	35
7032	58	0.00	0.00	0.00	0.00	58
7033	33	0.00	0.00	0.00	0.00	33
7034	24	0.00	16.00 (YC)	16.00	0.00	8
7035	32	0.00	0.00	0.00	0.00	32
7036	46	0.00	0.00	0.00	5.20	46
7037	35	0.00	0.00	0.00	0.00	35
7038	52	0.00	0.00	0.00	0.00	52
7039	11	0.00	0.00	0.00	0.00	11
8001	27	0.00	0.00	0.00	0.00	27
8002	4	0.00	0.00	0.00	0.00	4
8003	68	0.00	0.00	0.00	0.00	68
8004	17	0.00	0.00	0.00	0.00	17
8005	36	0.00	0.00	0.00	0.00	36
8006	86	0.00	0.00	0.00	0.00	86
8007	54	0.00	0.00	0.00	0.00	54
8008	58	0.00	0.00	0.00	0.00	58
8009	46	0.00	0.00	0.00	0.00	46
8010	38	0.00	0.00	0.00	0.00	38
8011	62	0.00	0.00	0.00	0.00	62
8012	51	21.00	21.00 (RC&YC)	21.00	0.00	30
8013	39	0.00	0.00	0.00	0.00	39
8014	26	0.00	0.00	0.00	0.00	26
8015	19	0.00	0.00	0.00	0.00	19
8016	40	0.00	0.00	0.00	0.00	40
8017	35	0.00	0.00	0.00	5.60	35
8018	75	0.00	0.00	0.00	0.00	75

NORTH REVILLA PROJECT AREA
PROPOSED ESSENTIAL REFORESTATION PROJECTS

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HU2 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
8019	34	0.00	0.00	0.00	6.80	34
8020	23	0.00	0.00	0.00	0.00	23
8021	24	0.00	0.00	0.00	0.00	24
8022	68	0.00	0.00	0.00	0.00	68
8023	89	0.00	0.00	0.00	0.00	89
8024	15	0.00	0.00	0.00	0.00	15
8025	43	0.00	0.00	0.00	0.00	43
8026	19	0.00	0.00	0.00	0.00	19
8027	56	0.00	0.00	0.00	0.00	56
8028	7	0.00	0.00	0.00	0.00	7
8029	106	0.00	0.00	0.00	12.80	106
8030	14	0.00	0.00	0.00	0.00	14
8031	11	0.00	0.00	0.00	0.00	11
8032	17	0.00	0.00	0.00	0.00	17
8033	8	0.00	0.00	0.00	0.00	8
8034	39	0.00	0.00	0.00	5.20	39
8035	90	0.00	0.00	0.00	16.40	90
8036	27	0.00	0.00	0.00	0.00	27
8037	90	0.00	0.00	0.00	18.00	90
8038	134	0.00	0.00	0.00	20.00	134
8039	29	0.00	0.00	0.00	0.00	29
8040	103	0.00	0.00	0.00	11.40	103
8041	44	0.00	0.00	0.00	0.00	44
8042	70	0.00	0.00	0.00	0.00	70
8043	24	0.00	0.00	0.00	0.00	24
8044	33	0.00	0.00	0.00	0.00	33
8045	10	0.00	0.00	0.00	0.00	10
8046	37	0.00	0.00	0.00	0.00	37
8047	15	0.00	0.00	0.00	0.00	15
8048	37	0.00	0.00	0.00	0.00	37
8049	12	0.00	0.00	0.00	0.00	12
8050	9	0.00	0.00	0.00	0.00	9
8051	47	0.00	0.00	0.00	9.40	47
8052	19	0.00	0.00	0.00	0.00	19
8053	90	0.00	0.00	0.00	9.60	90
8054	62	0.00	0.00	0.00	0.00	62
8055	43	0.00	0.00	0.00	8.60	43
9001	53	0.00	0.00	0.00	0.00	53
9002	19	0.00	0.00	0.00	0.00	19
9003	25	0.00	0.00	0.00	5.00	25
9004	28	0.00	0.00	0.00	0.00	28

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HU2 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
9005	61	0.00	0.00	0.00	0.00	61
9006	13	0.00	0.00	0.00	0.00	13
9007	11	0.00	0.00	0.00	0.00	11
9008	27	0.00	0.00	0.00	0.00	27
9009	62	0.00	0.00	0.00	5.00	62
9010	22	0.00	5.00 (SS)	5.00	0.00	17
9011	14	0.00	0.00	0.00	0.00	14
9012	47	0.00	16.00 (YC)	16.00	6.00	31
9013	14	0.00	0.00	0.00	0.00	14
9014	44	0.00	0.00	0.00	0.00	44
9015	19	0.00	0.00	0.00	0.00	19
9016	24	0.00	0.00	0.00	0.00	24
9017	16	0.00	0.00	0.00	0.00	16
9018	45	0.00	0.00	0.00	0.00	45
9019	38	0.00	0.00	0.00	0.00	38
9020	36	0.00	0.00	0.00	0.00	36
9021	25	0.00	0.00	0.00	0.00	25
9022	47	0.00	0.00	0.00	0.00	47
9023	49	0.00	0.00	0.00	0.00	49
9024	31	0.00	0.00	0.00	0.00	31
9025	35	0.00	0.00	0.00	0.00	35
9026	38	0.00	0.00	0.00	0.00	38
9027	63	0.00	20.00 (SS)	20.00	8.60	43
9028	23	0.00	23.00 (SS)	23.00	0.00	0
9029	103	0.00	30.00 (SS)	30.00	10.60	73
9030	57	0.00	0.00	0.00	6.80	57
9031	52	0.00	0.00	0.00	7.80	52
9032	31	0.00	0.00	0.00	0.00	31
9033	16	0.00	0.00	0.00	0.00	16
9034	36	0.00	0.00	0.00	7.20	36
9035	16	0.00	0.00	0.00	0.00	16
9036	26	0.00	0.00	0.00	0.00	26
9037	21	0.00	0.00	0.00	0.00	21
9038	114	0.00	0.00	0.00	10.80	114
9039	69	0.00	0.00	0.00	13.80	69
9040	40	0.00	0.00	0.00	0.00	40
9041	19	0.00	0.00	0.00	0.00	19
9042	19	0.00	0.00	0.00	0.00	19
9043	21	0.00	0.00	0.00	0.00	21
9044	70	0.00	0.00	0.00	5.40	70

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HU2 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
9045	85	0.00	0.00	0.00	11.80	85
9046	42	0.00	0.00	0.00	0.00	42
9047	67	0.00	0.00	0.00	5.60	67
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	8,585	154.00	363.00	363.00	357.60	8,222

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HU3 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
3005	32	0.00	0.00	0.00	0.00	32
3006	119	0.00	0.00	0.00	0.00	119
3014	18	0.00	0.00	0.00	0.00	18
3016	20	0.00	0.00	0.00	0.00	20
3017	38	0.00	0.00	0.00	0.00	38
3018	53	0.00	0.00	0.00	5.60	53
3019	37	0.00	0.00	0.00	7.40	37
3020	66	0.00	0.00	0.00	0.00	66
3021	66	0.00	0.00	0.00	0.00	66
3022	76	0.00	0.00	0.00	0.00	76
4006	58	0.00	0.00	0.00	7.20	58
5005	15	0.00	0.00	0.00	0.00	15
5008	62	40.00	40.00 (RC&YC)	40.00	0.00	22
5022	7	0.00	0.00	0.00	0.00	7
5024	67	0.00	0.00	0.00	13.40	67
5025	33	0.00	0.00	0.00	0.00	33
5026	58	0.00	0.00	0.00	0.00	58
5027	103	0.00	0.00	0.00	8.60	103
5028	21	0.00	0.00	0.00	0.00	21
5029	32	0.00	0.00	0.00	0.00	32
5030	17	0.00	0.00	0.00	0.00	17
5031	2	0.00	0.00	0.00	0.00	2
5032	57	0.00	0.00	0.00	0.00	57
5033	13	0.00	0.00	0.00	0.00	13
5034	21	0.00	0.00	0.00	0.00	21
6008	74	0.00	0.00	0.00	0.00	74
6017	24	0.00	0.00	0.00	0.00	24
6020	28	0.00	0.00	0.00	0.00	28
6021	36	0.00	0.00	0.00	7.20	36
6022	22	0.00	0.00	0.00	0.00	22
6023	10	0.00	0.00	0.00	0.00	10
6024	71	0.00	0.00	0.00	0.00	71
6025	52	0.00	0.00	0.00	0.00	52
6026	117	0.00	0.00	0.00	0.00	117
6027	23	0.00	0.00	0.00	0.00	23
6028	48	26.00	26.00 (RC&YC)	26.00	0.00	22
6029	51	0.00	0.00	0.00	0.00	51
6030	56	0.00	14.00 (YC)	14.00	0.00	42
6031	127	0.00	95.00 (YC)	95.00	0.00	32
6032	65	0.00	0.00	0.00	0.00	65
7003	37	0.00	0.00	0.00	0.00	37

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HU3 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
7015	13	0.00	0.00	0.00	0.00	13
7016	18	0.00	0.00	0.00	0.00	18
7020	18	0.00	0.00	0.00	0.00	18
7040	32	0.00	0.00	0.00	6.40	32
7041	26	0.00	0.00	0.00	0.00	26
7042	70	0.00	0.00	0.00	7.60	70
7043	48	0.00	0.00	0.00	8.00	48
7044	36	0.00	0.00	0.00	5.40	36
7045	25	25.00	25.00 (RC&YC)	25.00	0.00	0
7046	35	0.00	0.00	0.00	0.00	35
7047	50	0.00	0.00	0.00	0.00	50
7048	33	0.00	26.00 (YC)	26.00	0.00	7
7049	20	0.00	20.00 (YC)	20.00	0.00	0
7050	55	0.00	24.00 (YC)	24.00	0.00	31
8002	4	0.00	0.00	0.00	0.00	4
8003	68	0.00	0.00	0.00	0.00	68
8009	46	0.00	0.00	0.00	0.00	46
8011	62	0.00	0.00	0.00	0.00	62
8014	26	0.00	0.00	0.00	0.00	26
8015	19	0.00	0.00	0.00	0.00	19
8016	40	0.00	0.00	0.00	0.00	40
8025	43	0.00	0.00	0.00	0.00	43
8030	14	0.00	0.00	0.00	0.00	14
8045	10	0.00	0.00	0.00	0.00	10
8056	64	0.00	0.00	0.00	0.00	64
8057	76	0.00	0.00	0.00	0.00	76
8058	15	0.00	0.00	0.00	0.00	15
8059	51	0.00	0.00	0.00	0.00	51
8060	36	0.00	0.00	0.00	0.00	36
8061	26	0.00	0.00	0.00	5.20	26
8062	98	0.00	0.00	0.00	0.00	98
8063	47	0.00	0.00	0.00	0.00	47
8064	53	0.00	0.00	0.00	0.00	53
8065	30	0.00	0.00	0.00	0.00	30
8066	47	0.00	0.00	0.00	0.00	47
8067	15	0.00	0.00	0.00	0.00	15
8068	33	0.00	0.00	0.00	6.60	33
8069	117	0.00	0.00	0.00	13.40	117
8070	35	35.00	35.00 (RC&YC)	35.00	0.00	0
8071	41	0.00	0.00	0.00	0.00	41
8072	39	0.00	0.00	0.00	0.00	39

NORTH REVILLA PROJECT AREA
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HU3 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
8073	28	0.00	0.00	0.00	5.60	28
8074	45	0.00	0.00	0.00	9.00	45
8075	56	0.00	0.00	0.00	0.00	56
8076	131	0.00	0.00	0.00	20.40	131
8077	73	0.00	0.00	0.00	5.80	73
8078	35	0.00	0.00	0.00	0.00	35
8079	114	0.00	0.00	0.00	15.40	114
8080	39	0.00	0.00	0.00	0.00	39
9002	19	0.00	0.00	0.00	0.00	19
9003	25	0.00	0.00	0.00	5.00	25
9019	38	0.00	0.00	0.00	0.00	38
9021	25	0.00	0.00	0.00	0.00	25
9026	38	0.00	0.00	0.00	0.00	38
9028	23	0.00	23.00 (S)	23.00	0.00	0
9031	52	0.00	0.00	0.00	7.80	52
9037	21	0.00	0.00	0.00	0.00	21
9040	40	0.00	0.00	0.00	0.00	40
9041	19	0.00	0.00	0.00	0.00	19
9043	21	0.00	0.00	0.00	0.00	21
9044	70	0.00	0.00	0.00	5.40	70
9045	97	0.00	0.00	0.00	11.80	97
9048	65	0.00	0.00	0.00	0.00	65
9049	33	0.00	0.00	0.00	0.00	33
9050	50	0.00	0.00	0.00	0.00	50
9051	83	0.00	42.00 (S&YC)	42.00	0.00	41
9052	88	0.00	0.00	0.00	5.00	88
9053	18	0.00	0.00	0.00	0.00	18
9054	72	0.00	16.00 (YC)	16.00	7.80	56
9055	80	0.00	17.00 (S)	17.00	0.00	63
9056	30	0.00	0.00	0.00	0.00	30
9057	108	0.00	0.00	0.00	10.80	108
9058	42	0.00	0.00	0.00	7.20	42
9059	108	0.00	8.00 (S)	8.00	10.80	100
9060	30	0.00	30.00 (S)	30.00	0.00	0
9061	31	0.00	0.00	0.00	0.00	31
9062	93	0.00	20.00 (S)	20.00	8.60	68
9063	16	0.00	0.00	0.00	0.00	16
9064	83	0.00	0.00	0.00	0.00	83
9065	17	0.00	0.00	0.00	0.00	17
9066	24	0.00	0.00	0.00	0.00	24

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HU3 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
9067	71	0.00	0.00	0.00	0.00	71
9068	12	0.00	0.00	0.00	0.00	12
9069	40	0.00	0.00	0.00	0.00	40
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	5,769	126.00	461.00	461.00	241.20	5,308

NORTH REVILLA PROJECT AREA
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HU4 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
3006	119	0.00	0.00	0.00	0.00	119
3007	91	0.00	0.00	0.00	0.00	91
3010	50	0.00	0.00	0.00	0.00	50
3020	66	0.00	0.00	0.00	0.00	66
3023	50	0.00	0.00	0.00	0.00	50
3024	73	0.00	0.00	0.00	14.60	73
3035	68	0.00	0.00	0.00	0.00	68
3036	37	0.00	0.00	0.00	0.00	37
3037	43	0.00	0.00	0.00	0.00	43
3038	43	0.00	0.00	0.00	0.00	43
3039	80	0.00	0.00	0.00	10.60	80
4002	57	0.00	0.00	0.00	9.60	57
4004	17	0.00	0.00	0.00	0.00	17
4007	95	0.00	0.00	0.00	9.00	95
5001	73	0.00	0.00	0.00	5.00	73
5003	13	0.00	0.00	0.00	0.00	13
5019	41	0.00	0.00	0.00	0.00	41
5021	3	0.00	0.00	0.00	0.00	3
5022	7	0.00	0.00	0.00	0.00	7
5023	101	0.00	0.00	0.00	0.00	101
5028	21	0.00	0.00	0.00	0.00	21
5037	45	0.00	0.00	0.00	0.00	45
5038	61	0.00	0.00	0.00	12.20	61
5044	31	0.00	0.00	0.00	6.20	31
5050	55	0.00	0.00	0.00	0.00	55
5051	146	0.00	0.00	0.00	0.00	146
5052	37	0.00	0.00	0.00	0.00	37
5053	14	0.00	0.00	0.00	0.00	14
5054	13	0.00	0.00	0.00	0.00	13
5055	39	0.00	0.00	0.00	0.00	39
5056	51	0.00	0.00	0.00	0.00	51
6002	44	0.00	0.00	0.00	0.00	44
6003	72	0.00	0.00	0.00	0.00	72
6004	78	48.00	48.00 (RC&YC)	48.00	0.00	30
6007	48	0.00	0.00	0.00	0.00	48
6014	39	0.00	0.00	0.00	0.00	39
6017	24	0.00	0.00	0.00	0.00	24
6024	71	0.00	0.00	0.00	0.00	71
6028	48	26.00	26.00 (RC&YC)	26.00	0.00	22
6029	51	0.00	0.00	0.00	0.00	51
6031	127	0.00	95.00 (YC)	95.00	0.00	32

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HU4 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
6038	22	0.00	0.00	0.00	0.00	22
6052	86	0.00	14.00 (YC)	14.00	0.00	72
6053	25	0.00	0.00	0.00	0.00	25
6054	11	0.00	0.00	0.00	0.00	11
6055	59	0.00	0.00	0.00	8.00	59
7000	14	0.00	0.00	0.00	0.00	14
7008	14	0.00	0.00	0.00	0.00	14
7009	45	0.00	0.00	0.00	0.00	45
7015	13	0.00	0.00	0.00	0.00	13
7016	18	0.00	0.00	0.00	0.00	18
7020	18	0.00	0.00	0.00	0.00	18
7030	44	0.00	0.00	0.00	0.00	44
7031	35	0.00	0.00	0.00	0.00	35
7034	24	0.00	16.00 (YC)	16.00	0.00	8
7035	32	0.00	0.00	0.00	0.00	32
7036	46	0.00	0.00	0.00	5.20	46
7042	70	0.00	0.00	0.00	7.60	70
7044	36	0.00	0.00	0.00	5.40	36
7045	25	25.00	25.00 (RC&YC)	25.00	0.00	0
7046	35	0.00	0.00	0.00	0.00	35
7050	55	0.00	24.00 (YC)	24.00	0.00	31
7053	67	0.00	0.00	0.00	6.00	67
7056	46	0.00	0.00	0.00	9.20	46
7085	61	0.00	0.00	0.00	7.00	61
7086	63	0.00	0.00	0.00	0.00	63
7087	19	0.00	0.00	0.00	0.00	19
7088	11	0.00	0.00	0.00	0.00	11
7089	40	0.00	0.00	0.00	8.00	40
7090	9	0.00	0.00	0.00	0.00	9
7091	75	0.00	0.00	0.00	0.00	75
7092	57	0.00	0.00	0.00	9.00	57
7093	96	0.00	0.00	0.00	0.00	96
7094	134	0.00	0.00	0.00	0.00	134
7095	62	0.00	0.00	0.00	0.00	62
7096	37	0.00	0.00	0.00	0.00	37
7097	95	0.00	0.00	0.00	0.00	95
7098	28	0.00	14.00 (YC)	14.00	5.60	14
7099	15	0.00	0.00	0.00	0.00	15
8002	4	0.00	0.00	0.00	0.00	4
8003	68	0.00	0.00	0.00	0.00	68
8008	58	0.00	0.00	0.00	0.00	58

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HU4 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
8009	46	0.00	0.00	0.00	0.00	46
8011	62	0.00	0.00	0.00	0.00	62
8015	19	0.00	0.00	0.00	0.00	19
8016	40	0.00	0.00	0.00	0.00	40
8018	75	0.00	0.00	0.00	0.00	75
8025	43	0.00	0.00	0.00	0.00	43
8026	19	0.00	0.00	0.00	0.00	19
8027	56	0.00	0.00	0.00	0.00	56
8041	44	0.00	0.00	0.00	0.00	44
8060	36	0.00	0.00	0.00	0.00	36
8065	30	0.00	0.00	0.00	0.00	30
8073	28	0.00	0.00	0.00	5.60	28
8102	26	0.00	0.00	0.00	5.20	26
8109	43	0.00	0.00	0.00	8.60	43
8110	40	0.00	0.00	0.00	0.00	40
8111	14	0.00	0.00	0.00	0.00	14
8112	146	0.00	0.00	0.00	19.20	146
8113	107	0.00	0.00	0.00	15.60	107
8114	81	0.00	0.00	0.00	5.80	81
8115	81	0.00	0.00	0.00	12.20	81
8116	28	0.00	0.00	0.00	0.00	28
8117	34	0.00	0.00	0.00	0.00	34
9000	68	0.00	0.00	0.00	0.00	68
9015	19	0.00	0.00	0.00	0.00	19
9016	24	0.00	0.00	0.00	0.00	24
9026	38	0.00	0.00	0.00	0.00	38
9028	23	0.00	23.00 (S)	23.00	0.00	0
9031	52	0.00	0.00	0.00	7.80	52
9032	31	0.00	0.00	0.00	0.00	31
9039	69	0.00	0.00	0.00	13.80	69
9045	85	0.00	0.00	0.00	11.80	85
9048	65	0.00	0.00	0.00	0.00	65
9049	33	0.00	0.00	0.00	0.00	33
9050	50	0.00	0.00	0.00	0.00	50
9051	83	0.00	42.00 (S&YC)	42.00	0.00	41
9052	88	0.00	0.00	0.00	5.00	88
9053	18	0.00	0.00	0.00	0.00	18
9054	72	0.00	16.00 (YC)	16.00	0.00	56
9067	71	0.00	0.00	0.00	0.00	71
9069	40	0.00	0.00	0.00	0.00	40
9083	21	0.00	0.00	0.00	0.00	21

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PROPOSED ESSENTIAL REFORESTATION PROJECTS

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HU4 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
9089	62	0.00	0.00	0.00	0.00	62
9094	55	0.00	0.00	0.00	0.00	55
9095	38	0.00	0.00	0.00	0.00	38
9096	134	0.00	0.00	0.00	10.00	134
9097	93	0.00	20.00 (S)	20.00	10.60	73
9098	55	0.00	0.00	0.00	11.00	55
9099	94	0.00	0.00	0.00	9.20	94
9100	7	0.00	0.00	0.00	0.00	7
9101	131	0.00	0.00	0.00	0.00	131
9102	20	0.00	0.00	0.00	0.00	20
9103	20	0.00	0.00	0.00	0.00	20
9104	75	0.00	0.00	0.00	5.40	75
9105	21	0.00	0.00	0.00	0.00	21
9106	17	0.00	0.00	0.00	0.00	17
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	6,884	99.00	363.00	363.00	291.20	6,521

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HU5 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
2001	47	0.00	0.00	0.00	0.00	47
2003	40	0.00	28.00 (YC)	28.00	0.00	12
2006	48	0.00	0.00	0.00	0.00	48
2008	29	0.00	19.00 (YC)	19.00	0.00	10
2009	91	0.00	0.00	0.00	0.00	91
2010	21	21.00	21.00 (RC&YC)	21.00	0.00	0
2011	39	0.00	0.00	0.00	7.80	39
2012	20	0.00	0.00	0.00	0.00	20
2013	28	0.00	28.00 (S)	28.00	0.00	0
3007	91	0.00	0.00	0.00	0.00	91
3008	49	0.00	0.00	0.00	9.80	49
3011	46	0.00	0.00	0.00	7.40	46
3027	102	0.00	0.00	0.00	0.00	102
3028	21	0.00	0.00	0.00	0.00	21
3029	25	0.00	0.00	0.00	0.00	25
3030	45	0.00	0.00	0.00	0.00	45
3031	29	0.00	0.00	0.00	0.00	29
3032	32	0.00	0.00	0.00	0.00	32
3033	62	0.00	0.00	0.00	5.60	62
3034	38	0.00	0.00	0.00	0.00	38
3035	68	0.00	0.00	0.00	0.00	68
3036	37	0.00	0.00	0.00	0.00	37
4002	57	0.00	0.00	0.00	9.60	57
4004	17	0.00	0.00	0.00	0.00	17
4007	95	0.00	0.00	0.00	9.00	95
5003	13	0.00	0.00	0.00	0.00	13
5005	15	0.00	0.00	0.00	0.00	15
5008	62	40.00	40.00 (RC&YC)	40.00	0.00	22
5012	11	0.00	0.00	0.00	0.00	11
5018	73	0.00	0.00	0.00	7.20	73
5019	27	0.00	0.00	0.00	0.00	27
5021	3	0.00	0.00	0.00	0.00	3
5022	7	0.00	0.00	0.00	0.00	7
5028	21	0.00	0.00	0.00	0.00	21
5034	21	0.00	0.00	0.00	0.00	21
5039	58	0.00	0.00	0.00	9.20	58
5040	18	0.00	0.00	0.00	0.00	18
5041	15	0.00	0.00	0.00	0.00	15
5042	46	0.00	0.00	0.00	0.00	46
5043	28	0.00	0.00	0.00	0.00	28
5044	31	0.00	0.00	0.00	6.20	31

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HU5 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
5046	38	0.00	0.00	0.00	0.00	38
5047	27	0.00	0.00	0.00	0.00	27
5048	28	0.00	0.00	0.00	0.00	28
5049	14	0.00	0.00	0.00	0.00	14
5050	5	0.00	0.00	0.00	0.00	5
5051	2	0.00	0.00	0.00	0.00	2
6002	44	0.00	0.00	0.00	0.00	44
6027	37	0.00	0.00	0.00	0.00	37
6033	14	0.00	0.00	0.00	0.00	14
6034	13	0.00	0.00	0.00	0.00	13
6035	44	14.00	14.00 (RC&YC)	14.00	0.00	30
6036	22	0.00	0.00	0.00	0.00	22
6037	23	0.00	0.00	0.00	0.00	23
6038	22	0.00	0.00	0.00	0.00	22
6039	30	0.00	0.00	0.00	0.00	30
6040	34	34.00	34.00 (RC&YC)	34.00	0.00	0
6041	89	0.00	68.00 (YC)	68.00	0.00	21
6042	11	0.00	0.00	0.00	0.00	11
6043	11	0.00	0.00	0.00	0.00	11
6044	17	0.00	0.00	0.00	0.00	17
6045	18	0.00	0.00	0.00	0.00	18
6046	15	0.00	0.00	0.00	0.00	15
6047	19	0.00	0.00	0.00	0.00	19
6048	44	0.00	0.00	0.00	0.00	44
6049	20	0.00	0.00	0.00	0.00	20
6050	42	0.00	0.00	0.00	0.00	42
6051	56	0.00	0.00	0.00	0.00	56
7001	66	0.00	0.00	0.00	8.20	66
7002	33	0.00	0.00	0.00	0.00	33
7003	37	0.00	0.00	0.00	0.00	37
7004	22	0.00	0.00	0.00	0.00	22
7005	26	0.00	0.00	0.00	0.00	26
7007	16	0.00	0.00	0.00	0.00	16
7008	14	0.00	0.00	0.00	0.00	14
7012	44	25.00	25.00 (RC&YC)	25.00	0.00	19
7015	13	0.00	0.00	0.00	0.00	13
7016	18	0.00	0.00	0.00	0.00	18
7018	39	0.00	14.00 (YC)	14.00	0.00	25
7019	30	0.00	0.00	0.00	0.00	30
7020	18	0.00	0.00	0.00	0.00	18
7021	59	0.00	0.00	0.00	6.00	59

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PROPOSED ESSENTIAL REFORESTATION PROJECTS

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HU5 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
7025	20	0.00	0.00	0.00	0.00	20
7028	14	0.00	0.00	0.00	0.00	14
7029	17	0.00	7.00 (YC)	7.00	0.00	10
7031	35	0.00	0.00	0.00	0.00	35
7032	58	0.00	0.00	0.00	0.00	58
7034	24	0.00	16.00 (YC)	16.00	0.00	8
7047	50	0.00	0.00	0.00	0.00	50
7054	16	0.00	0.00	0.00	0.00	16
7055	54	0.00	0.00	0.00	10.80	54
7056	66	0.00	0.00	0.00	9.20	66
7057	11	0.00	0.00	0.00	0.00	11
7058	49	0.00	0.00	0.00	6.20	49
7059	13	0.00	0.00	0.00	0.00	13
7060	15	0.00	0.00	0.00	0.00	15
7061	9	0.00	0.00	0.00	0.00	9
7062	24	0.00	0.00	0.00	0.00	24
7063	9	0.00	0.00	0.00	0.00	9
7064	7	0.00	0.00	0.00	0.00	7
7066	21	0.00	0.00	0.00	0.00	21
7067	18	0.00	0.00	0.00	0.00	18
7068	26	0.00	0.00	0.00	0.00	26
7069	17	0.00	0.00	0.00	0.00	17
7070	50	0.00	0.00	0.00	10.00	50
7071	30	0.00	0.00	0.00	0.00	30
7072	15	0.00	0.00	0.00	0.00	15
7073	63	0.00	0.00	0.00	0.00	63
7074	78	0.00	0.00	0.00	0.00	78
7075	26	0.00	26.00 (YC)	26.00	0.00	0
7076	33	13.00	13.00 (RC&YC)	13.00	0.00	20
7077	15	0.00	0.00	0.00	0.00	15
7078	16	0.00	0.00	0.00	0.00	16
7079	6	0.00	0.00	0.00	0.00	6
7080	50	0.00	0.00	0.00	0.00	50
7081	11	0.00	0.00	0.00	0.00	11
7082	8	0.00	0.00	0.00	0.00	8
7083	9	0.00	0.00	0.00	0.00	9
7084	42	0.00	0.00	0.00	0.00	42
8005	36	0.00	0.00	0.00	0.00	36
8008	58	0.00	0.00	0.00	0.00	58
8009	46	0.00	0.00	0.00	0.00	46
8011	62	0.00	0.00	0.00	0.00	62

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HU5 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
8014	26	0.00	0.00	0.00	0.00	26
8015	19	0.00	0.00	0.00	0.00	19
8025	43	0.00	0.00	0.00	0.00	43
8026	19	0.00	0.00	0.00	0.00	19
8027	56	0.00	0.00	0.00	0.00	56
8028	7	0.00	0.00	0.00	0.00	7
8035	90	0.00	0.00	0.00	16.40	90
8041	44	0.00	0.00	0.00	0.00	44
8044	33	0.00	0.00	0.00	0.00	33
8046	37	0.00	0.00	0.00	0.00	37
8048	37	0.00	0.00	0.00	0.00	37
8070	35	35.00	35.00 (RC&YC)	35.00	0.00	0
8073	28	0.00	0.00	0.00	5.60	28
8077	61	0.00	0.00	0.00	5.80	61
8082	21	0.00	0.00	0.00	0.00	21
8083	26	0.00	0.00	0.00	0.00	26
8084	24	0.00	0.00	0.00	0.00	24
8085	6	0.00	0.00	0.00	0.00	6
8086	86	0.00	0.00	0.00	0.00	86
8087	21	0.00	0.00	0.00	0.00	21
8088	52	0.00	0.00	0.00	0.00	52
8089	42	0.00	0.00	0.00	0.00	42
8090	20	0.00	0.00	0.00	0.00	20
8091	44	0.00	0.00	0.00	0.00	44
8092	42	0.00	0.00	0.00	0.00	42
8093	48	0.00	0.00	0.00	0.00	48
8094	15	0.00	0.00	0.00	0.00	15
8095	14	0.00	0.00	0.00	0.00	14
8096	17	0.00	0.00	0.00	0.00	17
8097	8	0.00	0.00	0.00	0.00	8
8098	84	0.00	0.00	0.00	0.00	84
8099	11	0.00	0.00	0.00	0.00	11
8100	54	0.00	0.00	0.00	0.00	54
8101	18	0.00	0.00	0.00	0.00	18
8102	26	0.00	0.00	0.00	5.20	26
8103	22	0.00	0.00	0.00	0.00	22
8104	135	0.00	0.00	0.00	21.20	135
8105	35	0.00	0.00	0.00	0.00	35
8106	43	0.00	0.00	0.00	0.00	43
8107	31	0.00	0.00	0.00	0.00	31
8108	34	0.00	0.00	0.00	0.00	34

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HU5 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
9004	28	0.00	0.00	0.00	0.00	28
9006	13	0.00	0.00	0.00	0.00	13
9008	27	0.00	0.00	0.00	0.00	27
9010	22	0.00	5.00 (S)	5.00	0.00	17
9013	14	0.00	0.00	0.00	0.00	14
9014	44	0.00	0.00	0.00	4.60	44
9015	19	0.00	0.00	0.00	0.00	19
9016	24	0.00	0.00	0.00	0.00	24
9018	45	0.00	0.00	0.00	0.00	45
9021	25	0.00	0.00	0.00	0.00	25
9022	47	0.00	0.00	0.00	0.00	47
9026	38	0.00	0.00	0.00	0.00	38
9027	63	0.00	20.00 (S)	20.00	0.00	43
9031	52	0.00	0.00	0.00	7.80	52
9034	36	0.00	0.00	0.00	7.20	36
9039	69	0.00	0.00	0.00	13.80	69
9043	21	0.00	0.00	0.00	0.00	21
9049	33	0.00	0.00	0.00	0.00	33
9053	18	0.00	0.00	0.00	0.00	18
9057	108	0.00	0.00	0.00	10.80	108
9068	12	0.00	0.00	0.00	0.00	12
9069	40	0.00	0.00	0.00	0.00	40
9075	56	0.00	0.00	0.00	5.40	56
9076	35	0.00	0.00	0.00	0.00	35
9077	51	0.00	0.00	0.00	0.00	51
9078	15	0.00	0.00	0.00	0.00	15
9079	62	0.00	0.00	0.00	5.00	62
9080	28	0.00	0.00	0.00	0.00	28
9081	8	0.00	0.00	0.00	0.00	8
9082	40	0.00	0.00	0.00	0.00	40
9083	21	0.00	0.00	0.00	0.00	21
9084	144	0.00	0.00	0.00	10.00	144
9085	66	0.00	61.00 (S)	61.00	0.00	5
9086	32	0.00	0.00	0.00	0.00	32
9087	69	0.00	46.00 (S)	46.00	0.00	23
9088	14	0.00	0.00	0.00	0.00	14
9089	62	0.00	0.00	0.00	0.00	62

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HU5 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
9090	24	0.00	0.00	0.00	0.00	24
9091	76	0.00	0.00	0.00	0.00	76
9092	20	0.00	0.00	0.00	0.00	20
9093	6	0.00	0.00	0.00	0.00	6
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	7,168	182.00	520.00	520.00	242.20	6,648

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HU6 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
3005	32	0.00	0.00	0.00	0.00	32
3006	119	0.00	0.00	0.00	0.00	119
3010	50	0.00	0.00	0.00	0.00	50
3014	18	0.00	0.00	0.00	0.00	18
3016	20	0.00	0.00	0.00	0.00	20
3019	37	0.00	0.00	0.00	7.40	37
3020	66	0.00	0.00	0.00	0.00	66
3021	66	0.00	0.00	0.00	0.00	66
3022	76	0.00	0.00	0.00	0.00	76
3023	50	0.00	0.00	0.00	0.00	50
3024	73	0.00	0.00	0.00	14.60	73
3025	84	0.00	0.00	0.00	5.60	84
3026	91	0.00	0.00	0.00	10.60	91
4006	58	0.00	0.00	0.00	7.20	58
5008	62	40.00	40.00 (RC&YC)	40.00	0.00	22
5022	7	0.00	0.00	0.00	0.00	7
5024	67	0.00	0.00	0.00	13.40	67
5025	33	0.00	0.00	0.00	0.00	33
5026	58	0.00	0.00	0.00	0.00	58
5027	103	0.00	0.00	0.00	8.60	103
5028	21	0.00	0.00	0.00	0.00	21
5029	32	0.00	0.00	0.00	0.00	32
5030	17	0.00	0.00	0.00	0.00	17
5031	2	0.00	0.00	0.00	0.00	2
5032	57	0.00	0.00	0.00	0.00	57
5033	13	0.00	0.00	0.00	0.00	13
5034	21	0.00	0.00	0.00	0.00	21
5035	36	0.00	0.00	0.00	7.20	36
5036	95	0.00	0.00	0.00	0.00	95
5037	45	0.00	0.00	0.00	0.00	45
5038	61	0.00	0.00	0.00	12.20	61
6002	44	0.00	0.00	0.00	0.00	44
6003	72	0.00	0.00	0.00	0.00	72
6008	74	0.00	0.00	0.00	0.00	74
6011	49	0.00	0.00	0.00	0.00	49
6017	24	0.00	0.00	0.00	0.00	24
6020	28	0.00	0.00	0.00	0.00	28
6021	36	0.00	0.00	0.00	7.20	36
6022	22	0.00	0.00	0.00	0.00	22
6023	10	0.00	0.00	0.00	0.00	10
6024	71	0.00	0.00	0.00	0.00	71

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HU6 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
6025	52	0.00	0.00	0.00	0.00	52
6027	37	0.00	0.00	0.00	0.00	37
6028	48	26.00	26.00 (RC&YC)	26.00	0.00	22
6029	51	0.00	0.00	0.00	0.00	51
6030	56	0.00	14.00 (YC)	14.00	0.00	42
6031	127	0.00	95.00 (YC)	95.00	0.00	32
6032	65	34.00	34.00 (RC&YC)	34.00	0.00	31
7009	45	0.00	0.00	0.00	0.00	45
7015	13	0.00	0.00	0.00	0.00	13
7016	18	0.00	0.00	0.00	0.00	18
7020	18	0.00	0.00	0.00	0.00	18
7040	32	0.00	0.00	0.00	6.40	32
7041	26	0.00	0.00	0.00	0.00	26
7042	70	0.00	0.00	0.00	7.60	70
7043	48	0.00	0.00	0.00	8.00	48
7044	36	0.00	0.00	0.00	5.40	36
7045	25	25.00	25.00 (RC&YC)	25.00	0.00	0
7046	35	0.00	0.00	0.00	0.00	35
7047	50	0.00	0.00	0.00	0.00	50
7048	33	0.00	26.00 (YC)	26.00	0.00	7
7050	55	0.00	24.00 (YC)	24.00	0.00	31
7052	48	0.00	34.00 (YC)	34.00	0.00	44
7053	67	0.00	0.00	0.00	0.00	64
7057	65	0.00	0.00	0.00	0.00	65
8002	4	0.00	0.00	0.00	0.00	4
8003	68	0.00	0.00	0.00	0.00	68
8014	26	0.00	0.00	0.00	0.00	26
8015	19	0.00	0.00	0.00	0.00	19
8016	40	0.00	0.00	0.00	0.00	40
8025	43	0.00	0.00	0.00	0.00	43
8026	19	0.00	0.00	0.00	0.00	19
8027	56	0.00	0.00	0.00	0.00	56
8030	14	0.00	0.00	0.00	0.00	14
8045	10	0.00	0.00	0.00	0.00	10
8056	64	0.00	0.00	0.00	0.00	58
8057	76	0.00	0.00	0.00	0.00	55
8058	15	0.00	0.00	0.00	0.00	15
8059	51	0.00	0.00	0.00	0.00	51
8060	36	0.00	0.00	0.00	0.00	36
8061	26	0.00	0.00	0.00	5.20	21
8063	47	0.00	0.00	0.00	0.00	47

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HU6 UNIT#	UNIT ACRES	SITE PREP	PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
8064	53	0.00	0.00	0.00	0.00	53
8065	30	0.00	0.00	0.00	0.00	30
8067	15	0.00	0.00	0.00	0.00	15
8068	33	0.00	0.00	0.00	6.60	33
8069	117	0.00	0.00	0.00	13.40	117
8071	41	0.00	0.00	0.00	0.00	41
8072	39	0.00	0.00	0.00	0.00	39
8073	28	0.00	0.00	0.00	5.60	28
8074	45	0.00	0.00	0.00	9.00	45
8075	56	0.00	0.00	0.00	0.00	56
8076	131	0.00	0.00	0.00	20.40	131
8077	73	0.00	0.00	0.00	5.80	73
8078	35	0.00	0.00	0.00	0.00	35
8080	39	0.00	0.00	0.00	0.00	39
8081	82	0.00	0.00	0.00	0.00	82
8082	93	0.00	0.00	0.00	11.20	93
9002	19	0.00	0.00	0.00	0.00	19
9003	25	0.00	0.00	0.00	5.00	25
9019	38	0.00	0.00	0.00	0.00	38
9021	25	0.00	0.00	0.00	0.00	25
9022	47	0.00	0.00	0.00	0.00	47
9026	38	0.00	0.00	0.00	0.00	38
9028	23	0.00	23.00 (S)	23.00	0.00	0
9031	52	0.00	0.00	0.00	7.80	52
9037	21	0.00	0.00	0.00	0.00	21
9040	40	0.00	0.00	0.00	0.00	40
9041	19	0.00	0.00	0.00	0.00	19
9043	21	0.00	0.00	0.00	0.00	21
9044	70	0.00	0.00	0.00	5.40	70
9045	97	0.00	0.00	0.00	11.80	97
9048	65	0.00	0.00	0.00	0.00	65
9049	33	0.00	0.00	0.00	0.00	33
9050	50	0.00	0.00	0.00	0.00	50
9051	83	0.00	42.00 (S&YC)	42.00	0.00	41
9052	88	0.00	0.00	0.00	5.00	88
9053	18	0.00	0.00	0.00	0.00	18
9054	72	0.00	16.00 (YC)	16.00	0.00	56
9055	80	0.00	17.00 (S)	17.00	0.00	63
9056	30	0.00	0.00	0.00	0.00	30
9057	108	0.00	0.00	0.00	10.80	108
9058	42	0.00	0.00	0.00	7.20	42

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HU6 UNIT#	UNIT ACRES	SITE PREP	PLANT PLANT	PLANT SURVEY	RELEASE & WEED	REGEN SURVEY
9059	108	0.00	8.00 (S)	8.00	10.80	100
9060	30	0.00	30.00 (S)	30.00	0.00	0
9061	31	0.00	0.00	0.00	0.00	31
9062	93	0.00	20.00 (S)	20.00	0.00	73
9064	83	0.00	0.00	0.00	0.00	83
9065	17	0.00	0.00	0.00	0.00	17
9067	71	0.00	0.00	0.00	0.00	71
9068	12	0.00	0.00	0.00	0.00	12
9069	40	0.00	0.00	0.00	0.00	40
9070	93	0.00	0.00	0.00	13.80	93
9071	72	0.00	0.00	0.00	0.00	72
9073	50	0.00	0.00	0.00	0.00	50
9074	55	0.00	0.00	0.00	11.00	55
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	6,676	125.00	474.00	474.00	287.20	6,202

Appendix J

Mitigation and Monitoring Measures

DRAFT

APPENDIX J

TABLE J-2

MITIGATION MEASURES
WATERSHED

Timber Management Requiring
Mitigation Measures
Areas Requiring Full or Partial Suspension
(Soil and Water Conservation Practice)

Harvest Unit Number	Areas of Harvest on MMI=3 Soils (P 13.5) Acres	Areas Requiring Partial or Full Suspension (P 13.9) Acres	Areas of Wetlands (P 13.15) Acres	Areas of McGilvery Soils (P 13.19) Acres	Alternatives Included In
2001	33	47	9	34	2,5
2002	27	26	0	26	2
2003	0	40	0	0	2,5
2004	0	20	8	12	2
2005	34	41	7	34	2
2006	46	49	49	0	2
2007	4	4	4	0	2
2008*	23	29	29	0	5
2009	71	91	81	10	5
2010	22	29	29	0	5
2011	20	38	19	20	5
2012	7	20	6	7	5
2013	6	12	0	6	5
3001	3	20	9	11	2
3002	26	27	26	0	2
3003	9	106	20	97	2
3004*	144	144	1	82	2,3
3005	32	32	0	0	2,3,6
3006	117	119	2	0	2,3,4,6
3007*	0	90	82	8	2,4,5
3008	29	49	13	0	2,5
3009*	0	24	23	1	2
3010	32	50	14	5	2,4,6
3011*	10	25	0	15	2,5
3012	27	31	4	0	2
3013	2	3	1	0	2
3014*	0	12	12	0	2,3,6
3015*	0	4	4	0	2,3
3016*	0	2	2	0	3,6
3017	12	13	1	0	3
3018*	10	14	4	0	3

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3019	0	19	0	0	3,6
3020	64	65	1	0	4,6
3021*	0	23	0	0	3,6
3022	0	75	67	8	3,6
3023	0	50	0	0	4,6
3024	0	24	0	0	4,6
3025*	27	31	4	0	6
3026	0	64	0	0	6
3027	100	101	1	17	5
3028	21	21	0	0	5
3029	25	25	1	0	2,5
3030	44	46	2	0	5
3031	28	29	1	0	5
3032	23	32	9	0	5
3033*	10	14	4	0	5
3034	12	13	1	0	5
3035*	0	17	17	0	4,5
3036	36	37	1	0	4,5
3037	42	42	0	42	4
3038	19	20	2	0	4
3039	51	52	1	0	4
4002	11	57	16	41	2,4,5
4004*	0	17	9	8	2,4,5
4006	0	58	28	30	3,6
4007	5	95	54	36	4,5
5001	43	48	38	0	2,4
5002*	5	73	61	17	2
5003*	0	13	1	12	2,4
5004	7	71	11	60	2
5005*	0	15	2	13	2,3,5
5006*	16	23	9	14	2
5007	24	46	24	21	2
5008	0	62	0	62	2,3,6
5010	0	12	2	10	2
5011	0	88	22	66	2
5012*	6	11	6	4	2,5
5013*	29	47	35	41	2
5014*	34	50	47	3	2
5015*	4	4	4	0	2
5017	45	65	45	20	2
5018	50	73	14	23	2,5
5019*	0	41	19	23	2,4,5
5020*	0	13	0	13	2
5021*	0	3	0	3	2,4,5
5022*	0	7	1	6	2,3,4,5,6
5023	6	101	6	93	2,4
5024	0	21	0	0	3,6
5025*	0	8	0	0	3,5,6
5026*	0	32	0	0	3,6
5027*	0	26	0	0	3,6
5028	0	22	4	18	3,4,5,6
5029*	13	31	14	25	3,6
5030	0	42	0	0	3,6
5031*	0	2	0	0	3,6

APPENDIX J

5032*	0	12	0	0	3,6
5033*	0	13	0	0	3,6
5034	0	21	3	18	3,5,6
5035	29	36	4	3	6
5036*	58	95	73	22	6
5037	0	45	5	40	4,6
5038	0	61	0	0	4,6
5039	24	58	25	34	5
5040*	0	18	16	2	5
5041*	0	14	0	14	5
5042	7	45	9	42	5
5043	0	28	4	24	5
5044	0	31	4	27	4,5
5046*	22	38	37	36	5
5047	17	26	26	0	5
5048*	27	27	27	0	5
5049	9	14	9	0	5
5050*	0	5	0	5	4,5
5051*	0	80	0	0	4
5052	21	36	10	5	4
5053	9	14	9	0	4
5054*	13	13	13	0	4
5055*	19	39	21	9	4
5056*	37	50	50	0	4
6001*	14	28	0	14	2
6002*	0	44	7	37	2,4,5,6
6003	62	72	58	4	2,4,6
6004*	54	77	20	3	2,4
6006	0	53	0	53	2
6007	25	48	28	20	2,4
6008*	0	74	73	1	2,3,6
6009*	0	62	10	52	2
6010*	30	77	52	25	2
6011	16	50	16	34	2,6
6012*	40	53	31	0	2
6013*	46	57	9	1	2
6014	39	39	0	1	2,4
6015	17	24	19	5	2
6016	25	30	15	0	2
6017	24	25	25	0	2,3,4,6
6018*					
6019	18	22	0	4	2
6020*	0	28	0	0	3,6
6021	0	36	0	0	3,6
6022*	0	23	0	0	3,6
6023*	0	10	0	0	3,6
6024*	0	18	0	0	3,4,6
6025*	21	28	3	4	3,6
6026*	0	58	0	0	3
6027*	0	37	0	0	3,5,6
6028*	0	46	0	0	3,4,6
6029	0	43	0	43	3,4,6
6030	0	56	0	0	3,6
6031	0	127	0	0	3,4,6

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6032*	0	43	0	0	3,6
6033	7	7	0	0	5
6034*	3	4	0	1	5
6035*	20	36	16	0	5
6037	0	24	0	24	5
6038	0	24	0	0	3,4,5
6039*	0	30	18	12	5
6040*	1	34	1	34	5
6041	18	89	38	51	5
6042*	10	11	1	0	5
6043*	4	11	11	0	5
6044*	1	18	17	0	5
6045*	15	18	2	1	5
6046*	1	15	13	0	5
6047	19	19	0	1	5
6048	44	44	0	26	5
6049	20	20	0	2	5
6051	46	56	30	23	5
6052*	2	86	24	63	4
6053*	18	25	25	0	4
6054*	8	11	2	1	4
6055*	36	59	18	0	4
7001*	57	66	55	0	2,5
7002*	0	33	27	5	2,5
7003	0	37	36	1	2,3,5
7004*	0	22	21	1	2,5
7005*	9	26	1	17	2,5
7006*	10	32	32	0	2
7007*	0	16	14	2	2,5
7008*	0	15	15	0	2,4,5
7009	0	44	0	44	2,4,6
7010*	14	27	8	0	2
7011	14	36	22	0	2
7012*	17	45	27	2	2,5
7013*	0	45	45	0	2
7014*	0	15	12	3	2
7015*	0	13	13	0	2,3,4,5,6
7016*	11	19	4	3	2,3,4,5,6
7017*	61	69	29	0	2
7018	38	40	10	0	2,5
7019*	12	29	7	20	2,5
7020*	15	18	9	0	2,3,4,5,6
7021*	60	60	29	3	2,5
7022*	8	32	15	6	2
7023*	66	75	10	22	2
7024	25	25	1	0	2
7025	0	20	20	0	2,5
7026	69	69	0	0	2
7027	35	35	0	0	2
7028	13	13	0	0	2,5
7029*	12	17	12	5	2,5
7030*	44	44	44	0	2,4
7031	0	35	0	35	2,4,5
7032*	33	58	53	0	2,5

7033	18	33	0	29	2
7034	22	24	24	0	2,4,5
7035*	32	32	0	0	2,4
7036	45	45	0	0	2,4
7037	34	34	0	4	2
7038	17	52	16	0	2
7040	23	31	20	1	3,6
7041*	9	26	1	17	3,6
7042*	0	70	50	20	3,4,6
7043*	0	32	0	0	3,6
7044*	14	36	22	0	3,4,6
7045*	17	26	15	2	3,4,6
7046*	0	34	0	0	3,4,6
7047*	0	33	23	10	3,5,6
7048*	29	32	17	0	3,6
7049	0	20	0	0	3
7050*	0	78	0	0	3,4,6
7052	47	48	27	0	6
7053	0	30	0	0	4,6
7054*	0	16	16	0	5
7055	34	54	35	0	5
7056	28	66	28	3	4,5
7057	11	11	0	0	5,6
7058*	48	50	2	30	5
7059	12	12	0	0	5
7060	15	15	0	0	5
7061*	8	8	0	8	5
7062	2	24	22	2	5
7063	9	9	0	0	5
7064*	7	7	0	0	5
7066	8	21	0	17	5
7067	15	18	0	18	5
7068	21	27	13	6	5
7069*	11	16	15	1	5
7070	50	50	0	0	5
7071	30	30	0	0	5
7072	15	15	0	0	5
7073	59	62	13	3	5
7074	75	77	11	30	5
7075*	25	26	14	0	5
7076*	30	33	13	0	5
7077	12	15	1	0	5
7078*	0	15	15	0	5
7079*	0	4	4	0	5
7080*	44	51	47	1	5
7081*	0	11	11	0	5
7082*	6	8	2	0	5
7083	5	9	4	0	5
7084*	0	1	1	0	5
7085*	0	35	0	0	4
7086	8	8	0	0	4
7088	11	11	0	0	4
7089	4	40	36	2	4
7090*	8	8	0	8	4

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7091*	83	83	0	36	4
7092	30	56	0	40	4
7093*	66	97	77	7	4
7094	134	134	0	0	4
7095	53	62	9	0	4
7096	33	37	12	3	4
7097	88	94	23	44	4
7098	27	28	10	0	4
7099	12	15	1	1	4
8001*	4	27	26	0	2
8002*	4	4	0	0	3,4,6
8003*	69	69	0	0	2,3,4,6
8004*	17	17	0	0	2
8005*	2	36	0	34	2,5
8006*	76	84	8	1	2
8007	53	53	0	0	2
8008	58	58	0	0	2,4,5
8009	45	45	0	0	2,3,4,5
8010*	4	37	37	0	2
8011*	0	51	51	0	2,3,4,5
8012*	49	50	25	0	2
8013*	9	39	34	0	2
8014*	24	26	25	0	2,3,5,6
8015*	12	19	15	0	2,3,4,5,6
8016*	33	39	27	0	2,3,4,6
8017	6	36	34	0	2
8018	70	75	5	0	2,4
8021	0	24	24	0	2,6
8022*	40	69	11	45	2
8023	36	89	1	52	2
8024	15	15	0	0	2
8025	40	43	2	0	2,3,4,5,6
8026	0	20	20	0	2,4,5,6
8027	0	3	3	0	2,4,5,6
8028*	0	7	7	0	2,5
8029*	106	107	61	0	2
8030	10	14	3	3	2,3,6
8031*	9	11	9	0	2
8032*	16	17	1	0	2
8033*	8	8	0	8	2
8034	35	40	7	0	2
8035*	51	90	39	0	2,5
8036	5	27	22	0	2
8037	67	89	22	0	2
8038*	66	134	33	36	
8039	1	29	16	13	2
8040*	36	103	29	37	2
8041*	1	43	42	0	2,4,5
8042*	0	47	47	0	2
8043*	0	18	18	0	2
8044*	0	34	34	0	2,5
8045*	0	10	10	0	2,3,6
8046*	0	36	36	0	2,5
8047*	0	15	15	0	2

APPENDIX J

8048*	0	37	37	0	2,5
8049*	7	12	12	0	2
8050*	0	9	9	0	2
8051	0	47	47	0	2
8052	18	20	11	10	2
8053*	21	90	90	0	2
8054	21	61	61	0	2
8055	27	43	0	36	2
8056*	8	64	64	0	3,6
8057*		39	39	0	3,6
8058*	0	14	14	0	3,6
8059*	0	35	35	0	3,6
8060	0	36	0	0	3,6
8061	0	26	26	0	3,6
8062*	61	98	39	11	3
8063*	21	47	47	0	3,6
8064	47	53	27	22	3,6
8065*	29	29	1	0	3,4,6
8066*	10	47	0	37	3
8067*	2	15	15	0	3,6
8068	33	33	0	0	3,6
8069*	59	84	24	0	3,6
8070*	31	35	34	0	3,5
8071*	41	41	0	0	3,6
8072*	7	39	39	0	3,6
8073	0	28	27	0	3,4,5,6
8074	0	45	45	0	3,6
8075*	0	56	56	0	3,6
8076	59	59	0	0	3,6
8077*	60	60	0	0	3,5,6
8078*	1	33	32	0	3,6
8079*	50	114	28	37	3
8080*	16	39	21	3	3,6
8081	61	82	23	10	6
8082*	0	21	21	0	5,6
8083*	0	26	26	0	5
8084*	0	24	24	0	5
8085*	0	6	6	0	5
8086*	5	63	58	0	5
8087	5	21	19	3	5
8088*	11	53	43	11	5
8089	42	42	26	0	5
8090*	3	20	20	0	5
8091*	44	44	0	0	5
8092*	23	43	25	0	5
8093*	14	49	48	0	5
8094*	13	15	15	0	5
8095	0	14	14	0	5
8096*	16	17	1	0	5
8097*	8	8	0	8	5
8098*	72	84	59	0	5
8099*	9	11	9	0	5
8100*	53	54	16	0	5
8101*	0	6	6	0	5

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8102	23	26	4	0	4, 5
8103*	13	22	5	0	5
8104	107	134	27	0	5
8105	14	35	10	11	5
8106*	10	42	13	29	5
8107*	13	31	20	11	5
8108*	5	34	30	0	5
8109	0	43	43	0	4
8110	0	1	1	0	4
8111*	12	14	14	0	4
8112*	84	147	58	0	4
8113	86	105	20	0	4
8114*	53	80	1	26	4
8115*	28	80	10	42	4
8116	13	28	17	11	4
8117	12	34	5	17	4
9000	68	68	40	0	4
9001	46	53	3	7	2
9002	1	19	0	18	2, 3, 6
9003	2	25	13	10	2, 3, 6
9004	28	28	1	0	2, 5
9005*	16	16	5	0	2
9006*	0	13	13	0	2, 5
9007	0	11	1	10	2
9008	17	17	0	0	2, 5
9009*	0	17	17	0	2
9010*	2	2	0	0	2, 5
9011*	13	14	5	0	2
9012	9	17	17	0	2
9013	8	14	14	0	2, 5
9014	33	43	28	0	2, 5
9015	0	19	18	1	2, 4, 5
9016	24	24	24	0	4, 5
9017*	3	16	16	0	2
9018*	15	44	44	0	2, 5
9019*	6	14	9	1	2, 3, 6
9020*	28	36	7	0	2
9021*	0	25	25	0	2, 3, 5, 6
9022	40	47	47	0	2, 5, 6
9023	14	49	49	0	2
9024*	1	8	7	0	2
9025*	34	34	0	0	2
9026	28	38	38	0	2, 3, 4, 5, 6
9027	7	64	56	4	2, 5
9028*	0	3	0	3	2, 3, 4, 6
9029*	52	96	44	0	2
9030	9	57	6	49	2
9031	26	52	23	15	2, 3, 4, 5, 6
9032*	0	7	4	3	2, 4
9033	14	16	2	0	2
9034	24	36	13	0	2, 5
9035	12	16	4	0	2
9036*	26	26	0	0	2
9037*	15	15	0	0	2, 3, 6

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9038*	101	114	36	0	2
9039	8	69	0	61	2,4,5
9040	40	40	24	0	2,3,6
9041	2	19	19	0	2,3,6
9042	19	19	19	0	2
9043*	19	19	4	0	2,3,5,6
9044*	68	71	4	0	2,3,6
9045*	43	59	16	0	2,3,4,6
9046*	0	9	9	0	2
9047*	18	67	67	0	2
9048*	0	9	9	0	3,4,6
9049	0	1	0	1	3,4,6
9050	8	12	4	0	3,4,6
9051*	50	84	34	0	3,4,6
9052*	0	17	17	0	3,4,6
9053*	0	18	9	0	2,3,4,5,6
9054	21	50	29	0	3,4,6
9055*	0	35	0	0	3,6
9056*	0	30	0	0	3,6
9057*	95	108	36	0	3,6
9058*	6	6	0	0	3,6
9059*	57	102	45	0	3,6
9060	19	22	3	0	3,6
9061*	0	6	4	2	3,6
9062*	0	30	0	0	3,6
9063	9	16	16	0	3
9064*	0	50	0	0	3,6
9065	0	17	0	0	3,6
9066	24	24	0	0	3
9067*	16	16	0	0	3,4,6
9068	0	18	0	0	3,5,6
9069*	0	34	0	0	3,4,5,6
9071	32	93	0	61	6
9072	64	73	28	8	6
9073	50	50	1	0	6
9074	3	20	17	0	6
9075	26	56	0	30	5
9076	17	36	8	11	5
9077*	0	5	5	0	5
9079*	0	17	17	0	5
9080*	22	28	19	0	5
9081*	4	6	2	0	5
9082*	8	8	0	0	5
9083*	21	21	0	0	4,5
9084*	61	149	149	0	5
9085	44	52	8	0	5
9086	19	32	13	0	5
9087	24	69	0	42	5
9088*	0	6	4	2	5
9089	62	62	59	2	4,5
9090*	22	22	0	0	5
9091*	37	60	24	0	5
9092*	16	20	20	0	5
9093*	4	6	0	4	5

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9094*	15	54	54	12	4
9095*	3	15	12	2	4
9096*	58	140	140	0	4
9097*	16	93	86	4	4
9098	55	55	0	0	4
9099*	45	95	50	0	4
9100*	8	8	0	0	4
9101*	129	132	22	0	4
9102*	0	20	20	0	4
9103*	20	20	20	0	4
9104	73	76	3	0	4
9105*	0	20	13	7	4
9106*	10	17	7	0	4

*These harvest units contain high-lead settings, a combination of up-hill yarding and short-span (less than 400 feet) down-hill yarding. Units will be reviewed during Phase II layout to assess the capability of the proposed yarding systems to meet soil resource protection needs.

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